PUBLIC MEETING
BETWEEN U.S. NUCLEAR REGULATORY COMMISSION O350 PANEL
AND FIRST ENERGY NUCLEAR OPERATING COMPANY
OAK HARBOR, OHIO

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Meeting held on Tuesday, August 12, 2003, at 2:00 p.m. at the Oak Harbor High School, Oak Harbor, Ohio, taken by me, Marie B. Fresch, Registered Merit Reporter, and Notary Public in and for the State of Ohio.

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PANEL MEMBERS PRESENT:

U. S. NUCLEAR REGULATORY COMMISSION

John "Jack" Grobe,
Senior Manager, Region III Office
& Chairman, MC 0350 Panel
William Ruland, Senior Manager NRR
& Vice Chairman, MC 0350 Panel
Christine Lipa, Projects Branch Chief
Christopher Scott Thomas,
Senior Resident Inspector
U.S. NRC Office - Davis-Besse
Jon Hopkins,
NRR Project Manager - Davis-Besse
Jack Rutkowski, NRC Resident Inspector

FIRST ENERGY NUCLEAR OPERATING COMPANY

Lew Myers, FENOC Chief Operating Officer
Robert W. Schrauder,
Director - Support Services
James J. Powers, III
Director - Nuclear Engineering
Mark Bezilla, Vice President/Plant Manager
Steve Loehlein,
Manager - Nuclear Quality Assessment
Rick Dame, Reliability Unit Supervisor

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MS. LIPA: Good afternoon. I would like to welcome FirstEnergy and members of the public for coming to this meeting today. This is a public meeting between the NRC's Davis-Besse Oversight Panel and FirstEnergy Nuclear Operating Company.

My name is Christine Lipa, and I'm the Branch Chief in Region III, who is responsible for the NRC's inspection program of Davis-Besse.

The next slide shows the purposes of this meeting.

So, we'll talk about NRC's Oversight Panel activities since the last public meeting and going forward, and then also we'll turn over later on in the presentation to FirstEnergy and they'll discuss the status of activities in their restart plan.

The next slide shows the agenda. We'll start off with introductions and then we'll go through the rest of these items. You can see down near the bottom, we'll take a break before we have the public comment and question period. And we'll have another break as appropriate after about an hour and 15 minutes.

So, I would like to make some introductions here at the NRC table. To my far left is Jon Hopkins. He's the NRR Project Manager for the Davis-Besse facility.

Next to John is Bill Ruland. Bill is a Senior Manager in NRR and he's also the Vice Chairman of the

Davis-Besse Oversight Panel.

On my left is Jack Grobe. He's a Senior Manager in the Region III Office in Lisle, Illinois, and he's the Chairman of the Davis-Besse Oversight Panel.

On my right is Scott Thomas. He's the Senior Resident Inspector at the Davis-Besse facility.

We also have Jack Rutkowski running the slides. He's the Resident Inspector.

We also have Rolland Lickus. He's responsible for state and government affairs. Nancy Keller was in the foyer with the handouts and greeting everyone. And we have Jan Strasma, he's our Public Affairs. There in the back.

So, Lew, would you like to introduce your staff.

MR. MYERS: Absolutely. Thank you, Christine.

Today we have a couple people in the audience. Gary Leidich is with us in the audience. Gary is the new President of FENOC. I'm glad to have him here.

Also with him is Bill Cottle. Bill is the Chairman of the Nuclear Committee Board with FirstEnergy. He's also a FirstEnergy Board Member, and he's here with us today. Bill is out there also.

Now, the team. We have at the table today, we have Steve Loehlein down at the far end. Steve is the Manager of our Nuclear Quality Assessment Group.

Bob Schrauder is next to him. I think everyone knows Bob. He's Support Services Manager responsible for high pressure injection project that we have going on.

Mark Bezilla is to the left of me. Mark is the Vice President of the Davis-Besse plant.

Rick Dame next to him. Rick is sort of a new face. He's from our Perry Plant. And he's the Nuclear Engineering Supervisor at Perry Plant. He's here as Restart Test Manager to help out with not only the restart of the plant, but to lay the plans out for the upcoming Mode 3 Temperature Pressure Test.

And then next to him is Jim Powers. Jim is the Director of Nuclear Engineering.

MS. LIPA: Okay, thank you, Lew.

Also, are there public officials or representatives of public officials in the audience?

MR. PAPCUN: John Papcun, Ottawa County Commissioner.

MR. WITT: Jere Witt, Ottawa County Administrator.

MS. LIPA: Okay. Thank you.

I would like to point out, this meeting is open to public observation, obviously, but this is a business meeting between the NRC and FirstEnergy. At the conclusion

of the business portion of this meeting, but before we adjourn the meeting, we will have a public questions and comments period.

There are copies of the August edition of our monthly newsletter in the foyer, and copies of the slides that I'm using up here. Also the Utility has their slides, and those would be all used for references for you today.

We also have a public meeting feedback form that you can use to fill out and provide comments on how this meeting goes and mail that back to us or hand it to us today.

We're having this meeting transcribed today by Marie Fresch to maintain a record of the meeting; and the transcript will be available on our web page. It's usually about 3 to 4 weeks. So, it's important that all speakers use the microphone today, so the audience and the transcriber can hear.

The next slide shows a summary of the July 9th meeting. And during that meeting, the NRC provides a status of items on our Restart Checklist and some of our ongoing inspections. And then later in today's presentation, we'll provide an update on recently completed and ongoing NRC activities.

FirstEnergy last month also provided an update on the efforts that they have made towards restart. They

provided an update of several projects in topical areas, such as containment activities, the high pressure injection pump issues and their plans to resolve them, and then some performance in the area of Operations, Engineering and Maintenance. And they also discussed several plant improvements that have been made during the extended outage and some scheduled items. And, the transcripts from that meeting are available on our website.

The next slide shows some significant NRC activities since the previous meeting.

Actually, these next two slides discuss some important activities since last month's meeting. We held a Resident Inspection Exit and issued that Resident Report. The number is 03-15. That was issued on July 30.

And in that report, there were several findings discussed. Most importantly, we issued a preliminary yellow finding for the potential containment sump clogging issue that was identified. And our goal is to have the final significance issued for that issue within 90 days. Also, in that same report was an unresolved item associated with the high pressure injection pumps.

At each recent meeting we've been discussing the Licensee's plan to resolve the high pressure injection pumps going forward. Also, as part of the NRC's process, we need to review the as-found condition and the risk

significance of that condition. So, we need to complete our preliminary risk assessment associated with the high pressure injection pumps and then issue that preliminary determination.

That same inspection report also contained three self-revealing noncited violations associated with human performance during routine activities.

The next three items on the slide are some resent decisions on the part of the 0350 Panel to close Restart Checklist Items and that was based on recent inspection results. Those include the Integrated Leakage Test on Containment, which has a separate report. That report is number 03-05. And then two programs; Boric Acid Corrosion Management and Radiation Protection, which will be documented in the next Resident Inspection Report.

And what we did in the monthly newsletter, is we actually have the entire list of Restart Checklist Items, so that you can follow along which ones are closed. They have a check mark and they're in italics and they have the report number reference of where that checklist was closed and what the basis was.

Okay. The next slide has additional NRC activities. We recently issued three inspection reports. I already discussed two of those. That was the Resident Report and the Containment Leak Rate.

The third report is the Phase 2 of the Management and Human Performance. And based on the results of that inspection, we have closed the Restart Checklist Items that were associated with the root causes in the vessel head degradation and the corrective actions for those root causes.

We do still have a Phase 3 Inspection of the Management/Human Performance, and that is ongoing and that will continue and that evaluates the effectiveness of the corrective actions.

We also recently revised or updated the confirmatory action letter. This is a relatively minor revision which was issued simply to change the location that we requested the samples to be sent. Those are being sent to an NRC contractor for future research.

The next slide on continuing NRC activities. System Health is one of the inspections that continues on site this week. Plans to exit within the next two weeks.

For Safety Culture and Safety Conscious Work Environment, I already discussed our plans for the Phase 3 of Management and Human Performance. We're also planning on a public meeting on that topic. That date has not been set. We're looking at September right now.

Also the Corrective Action Team Inspection. They are back on site this week. We have three NRC Engineering

Inspectors and four contractors that are reviewing numerous Condition Reports to determine whether those issues have been appropriately resolved. That team will be on site for two of the next three weeks and they plan to exit in early September.

Then, of course, we have the two Resident Inspectors on site with ongoing inspection, and routine activities.

The next slide shows some other upcoming NRC activities. And I'll be covering most of these when I discuss the open Restart Checklist items.

And the next slide shows more up coming activities.

What I want to point out is some of the Licensee Event Reports have been, are being inspected by the Corrective Action Team and some are being reviewed by the Resident Inspectors. And in each case, what we do with the Licensee Event Report is we review the past significance of the issue as well as the Licensee's plans to resolve the issue going forward.

We also plan a Confirmatory Action Letter Update, again, once all the vessel head samples are received by our contractor and inventoried, then we will update the Confirmatory Action Letter to close two items, that Vessel Head Quarantine and the Root Cause.

Next slide shows the Open Restart Checklist. I think it's actually several slides. What I wanted to do is

walk through just the ones that are open and what our plans are for each one.

So, the first one is 2.a. Well, let me just point out to you that 15 of the 31 items on the Checklist remain open; and that is the Restart Checklist Item, Restart Checklist Revision.

So, for Item 2.a, which is the Reactor Pressure Vessel Head Replacement. The NRC completed initial inspection of this item and we found the replacement vessel head to be acceptable. That's been documented, but this item remains open pending the final testing. And the Licensee will be taking the plant to Modes 3 and 4 and doing what we're calling a Normal Operating Pressure Test, a 7-day test to test the vessel and do some other testing.

For Item 2.c, for Structures, Systems and Components inside Containment. We did Extent of Condition Inspections, and we still have three unresolved items that need to be reviewed by the Corrective Action Team and one will be during the 7-day Normal Operating Pressure Test.

For Item 2.c.1, which is the sump. The sump modification, Licensee did a rather extensive modification, and most of that modification was reviewed and is documented in a separate Inspection Report, 03-06, which was issued in June. And that inspection concluded that the new sump meets the design requirements, but there were a

couple of open items from that inspection and we still have one that the residents are following up on. That will be documented in a future report.

For Item 2.d, which is Extent of Condition of Systems Outside Containment, several systems have already been walked down by the Resident Inspectors and other inspectors, and those have been documented in three inspection reports. There has been no significant issues to-date, but the Residents need to review the Licensee's closure package before we can evaluate that item for closure.

The next slide shows Item 2.e, which is the High Pressure Injection Pump. The Licensee plans to modify the pump. I know we're talking about that some more today and we have plans to review that modification in detail.

For Item 3.a, this is on the Corrective Action Program. And what we still have left to do is we have a Corrective Action Team Inspection that's on site for two of the next three weeks. And, we really want to see what kind of results they have, and that will help the panel make their decision on this checklist item.

Item 3.c is Quality Audits and Self-Assessments of Programs. The NRC reviewed the Licensee's Root Cause Evaluation of the Quality Assessments and reviewed the Licensee's Assessments of its Programs. The results of

part of that have been completed and they're documented in Inspection Reports 02-11 and 03-09. Those were both issued in early July. Self-Assessments will be covered in a future inspection.

For item 3.i, this is the Licensee's new Process that they implemented for Ensuring Completeness and Accuracy of Required Records and Submittals to the NRC.

The Licensee has an action plan. They selected a sample of approximately 70 documents to review for Completeness and Accuracy, including generic letters, bulletins, Licensee Event Reports and amendment requests. And the NRC is planning a separate inspection once the Licensee has completed their action plan to review the results in this area.

The next slide shows 4.b, Effectiveness of Corrective Actions. I talked earlier about the Phase 3 Inspection we have planned for the Management and Human Performance area. That has already started, but it still continues. And that will be documented in Inspection Report 03-12.

That inspection is evaluating the Licensee's Process for tools for monitoring the improvement of Safety Culture and Safety Conscious Work Environment and the Effectiveness of the Employee Concerns Program. That's the status of that one.

For 5.a, this a review of Licensee's Restart Action Plan, which has been submitted on the docket. The NRC plans review of that action plan and associated findings and those will be evaluated by the Resident staff and the Panel and assisted by Region and Headquarter Staff. And the results of that review will be discussed in a Resident Inspection Report.

For Item 5.b, Readiness for Restart, our inspectors have been inspecting this area for quite awhile now. Various reviews of the Licensee has been done to review different systems and different topical areas. This checklist item will remain open pending a completion of inspection. That looks like it will be done in the next one to two weeks.

5.c is Operation's Readiness for Restart. There is actually several parts to this one. Management and Human Performance Phase 3 Inspection has a part of it where they evaluate the Licensee's recent Restart Readiness Assessment Process that they're going through.

Other activities that are covered in this item are the Resident Staff evaluating activities at each mode change. And, we also plan a Restart Readiness Assessment Team Inspection. That will be an NRC team of 4, 5 individuals. That will include some round-the-clock observations of control room and content of operation.

That inspection is currently scheduled to begin near the time the Licensee enters Mode 4 for the second time.

Okay. 5.d is Test Program Development and Implementation. Licensee has several tests that are unique and several other tests that need to be done as a result of this outage. Specifically, an example is the 7-day Normal Operating Pressure Test, some control rod drive tests that are necessary, anyway -- and also especially necessary because of the new vessel head. And also, they've done a lot of maintenance and modifications that need to be reviewed for a Post Maintenance and Post Modification Testing.

So, the NRC's plans to close this item will be based on completion of those inspections related to individual tests and evaluation of acceptability of the Licensee's Post Maintenance and Post Modification Testing; and that will be done by Resident and Region III staff.

So, the next slide is the last slide on the Checklist, and it covers Item 6.g, which is a License Amendment Request that the Licensee has submitted in May. NRC questions were sent to the Licensee and those have been answered, and the submittal is being reviewed.

Item 7.a is the Confirmatory Action Letter and that has several items on it. Each of those items needs to be resolved before plans for a restart meeting. And right now

this item is open pending completion of each of the items, and the Licensee plans a restart report and we plan on a public meeting to discuss Licensee's Readiness for Restart when we get to that point.

So, that provides a status of the NRC's Restart Checklist. And, that's my last slide. Unless there are further comments from the NRC table, I'll turn it over to FirstEnergy.

Okay, go ahead.

MR. MYERS: Thank you, Christine.

We have several desired outcomes today. First of all, Jim Powers will provide you with an understanding of solutions on the High Pressure Safety Injection Pump debris issue and the safety margin improvements that are resulting from the upgrades that have been made using the new state-of-the-art Electrical Distribution System software called ETAP.

Next, Mark Bezilla and Rick Dame will provide you with an understanding of the Readiness for Mode 3 Pressure and Temperature Test, and what I believe we will accomplish during that test performance.

I will then provide you with our present status on Safety Margin Culture Assessment that was performed in late July. I will also provide you with an understanding of the

barriers that have been anchored in both the organization and our people to ensure safety-related activities receive the appropriate attention.

Finally, our Quality Assurance Manager, Steve Loehlein, will provide you with some observations and assessments of activities performed at the site since our last meeting.

With that, I'll turn it over to Bob Schrauder.

MR. SCHRAUDER: Thank you, Lew.

As Lew said, I am Director of the Support Services Department. And one of the functions that I have during restart is to be the Senior Sponsor Project Manager for the resolutions of the High Pressure Injection Pump.

Desired outcome that I have for today's interface will provide you with an understanding of our solution path, both for the High Pressure Injection Pump and to show you that the solution assures that Davis-Besse High Pressure Injection Pumps will be operable for all conditions.

We are pleased with the progress that we've made on the project since the last public meeting. I feel like I can say with confidence that we have a design that will assure that these pumps will perform as expected under all necessary conditions.

Topics that I'm going to cover today are listed

here. And I'll start kind of in the middle and talk about where we're at with the design, and what design we have, our Defense-in-Depth Design. And then, I'm going to drop back a little bit and talk about where we are currently with the project and how we arrived at the designs we currently have. And then, I'll talk about where the project goes from here.

Next slide, please.

As I said, we are using a Defense-in-Depth Approach to increase the safety margin for these pumps. This design incorporates and improves the hydrostatic bearing design which is qualified for use in the French PWR's by Pump Guinard.

A part of that design locates bearing supply line, the waterline to the hydrostatic bearing on the discharge side of the impeller versus the suction side of the impeller which is on ours currently. What that does is reduces concentration and size of the debris that's able to get to the hydrostatic bearing.

We will use either a 50 or 90 mil strainer as an additional improvement to the French design, which will further protect the hydrostatic bearing orifice.

Our design will incorporate what I'll call an escape groove in the bearing, which allows debris to more readily clear from the bearing pad itself.

And then, additionally, we are hardfacing all of the critical wear surfaces with Stellite on this pump. That includes the ~~wearings~~ wear rings , the bushings, the hydrostatic bearing, the shaft sleeve itself, as well as the hydrostatic bearings, as I said.

So, if we move forward with how did we get to there. I'll drop back to progress on this project. We initially came up with a design concept and then went into verification and testing on that design concept. The verification testing provided us information; and some of that information is different than what our expected results would be. And that enabled us to finalize our design and properly characterize the debris loading for our upcoming qualification testing.

We're currently in the process of optimizing the design it will use and finalizing qualification test criteria. Now I'll discuss with you what those optimizations are a little bit later in the presentation.

So, what were the findings that we found during our verification testing? The going-in assumption that we had was that whatever debris in the water that got through our strainer, which at that time was a 90 mil strainer, that as it got into the bearing pads on the hydrostatic bearing, that the shaft of the high pressure injection pump rotation, which rotates about 3600 RPMs, would expel any

small debris that got in there, and would not cause any plugging in the bearing pad itself.

We had that assumption verified by several of the pump experts that we were working with on this project. And that assumption turned out not to be the case, not to be demonstrated in our verification testing.

Verification showed debris that was larger than the bearing clearance. Clearance between the pad itself and the clearance to what I'll call the escape channel for debris out of that, could become lodged in the bearing pockets and that eventually led to plugging of those pockets.

We also found that fibrous material in significant quantities is problematic both for the strainer performance and for the tight clearances in the pump and hydrostatic bearing.

We found that an unrealistic LOCA debris characterization combined with small break LOCA pump load resulted in excessive debris loading.

The next two slides will discuss how we incorporated these findings into our final design concept in our preparations for qualification testing. I'm going to do that mostly through the use of these pictures. Bring us back here. This is a very good depiction of our current hydrostatic bearing in our high pressure injection pumps.

This area is what we refer to as the bearing pad. This is the orifice that feeds the water into hydrostatic bearing. And these are what I refer to as the escape grooves in the bearing. So, that is our original design.

Because this bearing pocket was plugging, initially we began then to adjust the size of our strainer in getting it down to a small enough size that any debris that actually got through would clear this approximately 6 to 7 mil clearance between the shaft and that escape groove there. And in the course of those verification tests, we found that fibrous material in the debris characterization as well as other particles were plugging those very fine -- they were in the range of 6 to 7 1/2 mil strainers.

So, we adjusted our strainers several times and finally we stopped, stood back, and said, okay, look, what are we trying to do here? We're trying to demonstrate we can clear debris out of this hydrostatic bearing. So, we stopped the project for several days. Reconvened. Went through several, went through engineering review committees, if you will, and got another set of figures on the project that would result with what is going on, what's plugging, how do we keep it from plugging, and where do we go from here.

Next slide, please.

One of the things that we found, and part of it was

information we gleaned from France, were that these pockets, the way they are curved up to this clearance, actually contributes to the clearance plugging as it kind of tapers it right down to that point. So, we believe and the French have incorporated that squaring this design pocket and make it a constant depth would avoid that condition of kind of easing the debris into the, into the slot.

We also came up with this approach of cutting a groove across the bearing and into the escape hatch. That groove is about a hundred mils by a hundred mil channel. It goes over to there.

We believe that that would keep the bearing clear, and that we could go back to a 90 degree, 90 mil strainer in this event.

So, we incorporated that design. Our next set of verification tests, we took those two assumptions and made different combinations of them for verification. That is, some of the pockets were left, the original design curvature like that, just the channel cut into it. Others of those pockets had this squared up design or constant depth design that I talked about. We moved grooves into these locations, top and bottom, center locations; different locations on there, and combined them with the different configurations.

What we found in that verification test was that indeed this groove seemed to be instrumental in maintaining the bearing pocket unplugged. All of the pockets that we had that groove in remained clear in that verification test with the 90 mil strainer.

We also had evaluated that groove, rotodynamics model, we showed it would not impact the rotodynamics of the pump; it would not rob the pump of its needed supply flow. It had very little impact at all on that. And, again, none of the pockets with that groove plugged.

We also were able to obtain the French design. And they were going to manufacture a bearing for us with that design. The duration was excessive as the French go on holiday this time of year. What we did agree to was to purchase that design from them.

Next slide, please.

What the French. This is not a real clear picture. I have to be a little careful because this design is proprietary for the French, so it's not drawn interdimension to their specs, but that is the orifice where it comes into the bearing. There is an H configuration etched into that. The legs of the H coming parallel with this plane. We have two legs here and across, the groove across that, that formulate what we call the H groove.

The escape grooves that I showed you before are eliminated in this design. One of the things that this design does is it increases metallic space in here and it actually stiffens this bearing and maintains its ability to, for the shaft to pump not to vibrate. So, you get a stiffer bearing and still have the ability with this pump, as a hydrostatic bearing.

We've taken this, that concept, because we have shown those grooves that I showed you before to be effective in clearing. Our next verification test will again have the five, or what are now the H grooves in this thing. And we will run that in different configurations again with grooves cut in right at the edge here coming at a 45-degree angle. We have pockets like that. We'll have some with a groove on both sides of the H. All four of the H's with a groove cut into it.

That's what I was talking about earlier about optimizing this design to find where best to put the groove and whether that groove makes any difference in this design; and if so, which one of them is the most effective, or is one groove the appropriate approach to take on that.

Next slide.

This is the location of the strainers on the discharge side. What that does, what the discharge, by putting it on the discharge side, we have a couple of

effects. The flow in this pump, if I look at it coming across this picture, the flow would be going this way. The flow to the bearing is actually bypass flow through the ~~wearings~~ wear rings, and that flow comes in this direction.

So, it's going back towards its path of least resistance for the ~~wearings~~ wear rings which is back to the side of lower pressure. As you increase stages of this pump, you increase the pressure, so that the leakage path moreover wants to go back.

On the suction side location of the strainer, you are further away from the shaft on this thing. Being further away, you're not as able to take advantage of the centrifugal forces that come out of the power itself as you eject water into its normal pump flow path and also there is a shorter route up to the inlet of the strainer itself.

Those two things combined. And also, one further thing is on the discharge side of this impeller, the -- you actually are able to use the tight wearing clearances that act as a filter zone after about 10 to 12 mil clearance in there, which is its preferred flow of water, so you get some filtering capability out of those tight clearances themselves. You're able again to get these closer to the rotating shaft which maximizes the benefits of centrifugal force of the water as it goes in.

So, the bottom line is, this design makes it more

difficult for debris to get through the stainer and thus to the hydrostatic bearing.

You really need some good detail pictures to show all those different flow paths.

MS. LIPA: So, Bob, do you plug off the inlet side? That's where the tap-off was. Do you plug that up?

MR. SCHRAUDER: Yes. That will, will not be, the tap-off will be relocated to this side. Actually, you move this up to the fifth stage from the fourth stage for take-off.

These screens are also one of the enhancements I talked about in the French design. They felt their design, qualified their design without the screens intact. So, this gets an added benefit of further straining filtering the water source to the hydrostatic bearing.

Next slide.

With regard to our final qualification tests, one of the things, again, I talked about the debris mode a little bit. What we found was by taking the worst case debris generation and combining it with the worst case pump flow characteristic which is a small break LOCA, those two things combined gave an unrealistic design source to the strainer.

What we did is went back, looked at that, and came

up with still a conservative, but more realistic approach which matches the pump operation requirements with the debris generation conditions. And found that the limiting case in that, is long term operation of the boron precipitation control flow rate which is about 250 gallons per minute, combined subsequent to a large break LOCA. What that does is give you the largest amount of debris generation, but the flow rate, with the small break LOCA, you don't get the same amount of debris generation.

So, we take the large break LOCA debris generation, combine that with the long term boron precipitation control flow rate, and that is the limiting case for this condition.

MR. HOPKINS: Bob, let me ask you, approximately how many hours do you get to the precipitation control flow rate? How many hours past the accident?

MR. SCHRAUDER: Before you get to it or how long do we assume it will run?

MR. HOPKINS: No, before you get to it.

MR. SCHRAUDER: It's quite a ways into it. I don't have the exact answer to your question, Jon, but we will determine the long term mission time for boron precipitation that shows that the pump can operate at

that flow for the expected duration time.

MR. HOPKINS: Okay.

MR. MYERS: I believe it's, I looked at it. I believe it's like 2 to 8 hours, something like that, EOP. Within the first 8 hours, that you want, the boron precipitation on a large LOCA.

MR. HOPKINS: Okay.

MR. SCHRAUDER: I could get that exact time for you.

Then we talked about fiber also. One of the things that we saw was large amounts of fiber. Significant quantities of fiber is a detrimental character in these tests, and it impacted in several locations. The type of clearances in the ~~wearings~~ wear rings, we saw fiber accumulation there. We talked about those fiber mats in the past. We saw fiber was an impact both in plugging our finer mesh strainers that we had employed, and then it can collect other grit in the fiber matting and that can cause excessive wear on the parts you're trying to protect.

So, in response to that, we went into our containment and have removed nearly all the fibrous insulation in containment. We started this outage in the range of 87 cubic feet of fibrous insulation in containment. We were able to go back in and remove all but about 9/10 of a cubic foot.

Of that 9/10's, it is all assumed to be subject to LOCA forces and become potential for debris and the transport analysis accounting for that has 50 percent of that debris generation, the fiber available to the suction of the hydrostatic pump out of the high pressure injection pump.

There is also included in there an assumption of 3 cubic feet of fiber that was inadvertently left and/or we didn't find everything, so there is a conservatism of 3 cubic feet. And, 3 cubic feet, we assume all that is available for suction through the high pressure injection pumps, which gives us a total debris loading now of 3 1/2 cubic feed of fibrous material available for suction through the high pressure injection pump.

So, we took that, removed it from the containment, and then were able to adjust the debris loading in our test loop.

We also reassessed our debris transport analysis which had not taken into account settling of concrete rubble, if you will, that comes, that was subjected to the LOCA force. And that combined sand particles and heavier sand particles actually, we looked at the transport analysis for that getting to the suction of the pump, which again is different than the analysis that we do for loading your sump screen on that.

We had those analyses relooked at by several different engineering organizations, including the firm that had done the original transport analysis and our DAB. And everyone agrees that we have a more realistic, but definitely a conservative debris loading for our qualification test that's coming up.

MR. HOPKINS: Let me go over that a little more, Bob. So, you're taking the transport analysis another step, instead of just determining the transport to the containment sump screen; you tried to take it another step as to where would it settle out beyond that?

MR. SCHRAUDER: Yes. The transport analysis, not only to the sump screen. When you load the sump screen, your basic conservative assumption is everything that gets to it sticks on the sump screen itself.

When you're trying to look at, okay, what is my pump taking suction on, it's a different set of circumstances that you look at. That is, not everything gets stopped on the sump screen. Some of it passes through.

So, if you're loading it all, the original loading it all did not find these larger pieces of concrete rubble to be a problem in the strainer, so they were left in the analysis as transporting through that.

When we transported it for what's available to the pump suction, we found that there was not credit for the settling of that debris. In fact, verification testing, we couldn't keep it in solution. And our test tank was agitated and kept stirring at a much higher velocity than we expect to see in our containment.

So, the analysis simply allows the natural occurrence of larger pieces of concrete rubble to settle out, so it is not available for the suction of the pump. It cannot cause excessive wear on internal parts.

MR. HOPKINS: I think you said something I was kind of listening for, is that, it isn't just analysis, you have some verification testing that the concrete particles do settle out.

MR. SCHRAUDER: I want to say that verification testing was a chance to demonstrate settling of that heavy debris. It was just a fact in the verification test. We couldn't keep it in solution. Even in a very roughly agitated tank, it settles out. And it settles out in piping and it does not, we had to continuously add more and more debris to keep our mixture in solution.

So, like I said, we've taken some of that unrealism out of the analysis and we have had that double checked with people who have done the original transport analysis,

as well as our own DAB, an independent engineering firm to verify that we believe that debris loading to that high pressure injection pump was definitely a concern of debris loading; and we will be sharing that with the NRC inspector following its design.

MR. HOPKINS: Okay, let's go on.

MR. GROBE: Just one more question. When you were advised of debris transfer analysis to account for this concrete settling, what portion of the concrete was eliminated from your mixture in your sump? Was it now 5 percent reduction or 95 percent reduction?

MR. SCHRAUDER: It was not 95 percent, it was closer to 90 percent and fiber.

MR. GROBE: So, when you do these proof tests after you modify the pump, it will only have ten percent of the concrete constituent --

MR. SCHRAUDER: Of the larger concrete constituent, that's correct.

MR. GROBE: Okay, thank you.

MR. RULAND: Another question on this limiting case, you're assuming for long term operation for the pumps themselves? Can you elaborate a little bit on exactly what that assumption is? Making an

assumption, maybe I shouldn't, that you're not assuming, just doing the 50 gpm for some amount of time. Can you elaborate a little bit on what that assumption is?

MR. SCHRAUDER: If I understand your question correctly, you would like elaboration on why is this the bounding case for long term operation?

MR. RULAND: Yes. Jon alluded to the fact that initially there is going to be 8 hours maybe during the initial post-accident phase that the pump might be operating greater than 250 gpm. That's what I was assuming from his question, so.

MR. SCHRAUDER: Very early on in the accident, and initially obviously, you've taken suction off of the borated water storage tank. In a large break LOCA, you very quickly get to recirculation with the pump.

The impact on this pump -- and then you have to transport, you have to generate the debris, you have to transport to the pump.

The high flow rates on the pump, you're actually able to keep the strainer clearer with the high flow rates than lower flow rates on the thing.

So, the long term impact on the pump itself is the long term duration at the 250 gpm performance measure control. And it's really that phase when you're really looking at the wear on your ~~wearings~~ wear rings.

Bob Coward is in the audience and he has been working a lot in the analytical development of those models, if you would like more detail on it. He would be happy.

MR. RULAND: That's not necessary right now. Thank you.

MR. MYERS: One thing that we've done also is, during this outage, our primary method and it still is for boron precipitation to the high head safety injection pump is what we call a piggyback mode. We've also installed a new backup, which is very robust, not a licensed, but it is there. And what it does is -- (microphone problem)

MR. MYERS: During this outage, we made it our licensing basis is the high head safety injection, what we call piggyback mode. During the outage we've installed a modification, what we think is a robust modification. That's our backup method for boron precipitation.

What we do there, is we don't use the high head safety injection pump. We use the low head pump and take suction from the sump to the low head, and drop those from what we call the hot legs, which is pretty typical from what I've seen in the industry.

So, the method we have now in our licensing basis is

take the high head pump up to the spray head, and we have installed that modification. So, that either low head pump right now could be used when we start back up as a method of boron precipitation.

MR. SCHRAUDER: Okay, what are our project completion plans?

First of all, we do plan on having, as requested, additional meeting to focus solely on the final design of debris characterization with the NRC; and that will occur as we finalize the design and inspections are done. Tentatively, that is scheduled for around the third week of September right now.

We've also provided in the schedule for our testing done at Wylie Labs, so the inspector can come down and witness portions of that inspection that he needs to for the NRC, be able to verify if this design will function.

The HPI pumps have been returned to the Davis-Besse site unmodified. We have begun reassembly of those pumps and we've done that so that we can perform the Normal Operating Pressure Test.

The ordering of our hardface parts and the manufacture of the hydrostatic bearing took us out far enough in the schedule that we determined that it was more appropriate to get that Normal Operating Pressure Test done.

So, the NRC is reviewing a proposed license amendment request that documents that the high pressure injection pumps will not have to function off of the sump mode during that test. So, we have returned them. They are unmodified and they're being installed in the plant as we speak.

Our test loops, as I discussed, are being modified to incorporate the new flow rates for our upcoming qualification tests.

The qualification debris characterization is being finalized. And the hydrostatic bearing design is being adapted and approved as we said for the Davis-Besse high pressure injection pumps.

We're also getting, as I said, the new design manufactured for the test loop of the H configuration and we'll receive those shortly.

Our hardfaced replacement parts have been ordered, as have our new hydrostatic bearings; the manufacturing of those. We have not given the final etchings to be made for the H and dimensions on that, but we are getting the body of the hydrostatic bearing manufactured.

And then, we'll make our final pump modifications to the HPI pumps following our Normal Operating Pressure Test.

MR. HOPKINS: I have a question

here, Bob. Is there any difference between qualification testing and proof testing?

MR. SCHRAUDER: Well, qualification testing is what I'm referring to as proof testing; that this design will work. So, we go through verification testing first that shows us that our design concepts are expected to work. Then, we'll actually go into a much more lengthy qualification run on those designs that will incorporate the hardfacing, and that test will run for several weeks to determine what type of wear you can get on it and be able to take that to the respective mission times of the pumps. We'll have long duration runs on your bearing design and strainer design. What I'll refer to in the qualification test, that is the test that will demonstrate that this design works.

MR. HOPKINS: Okay, thank you.

MR. SCHRAUDER: Anything else?

MR. GROBE: Yeah, I have a couple questions.

The first one has to do with the pump manufacturer. The pump that you purchased, the high pressure injection pump from the French manufacture; the original hydrostatic bearing, has that been retrofitted in that same pump part number in France or is this new hydrostatic bearing from a more recently designed pump?

MR. SCHRAUDER: I don't know how to answer that, Jack.

Bob, do you know? Could you identify --

MR. COWARD: That goes into all their designs, it was retrofitted in their design.

MR. SCHRAUDER: Was it in fact designed for that pump?

MR. COWARD: (Nodded.)

MR. GROBE: Did Guinard file a part 21 on this?

MR. SCHRAUDER: Did what?

MR. GROBE: Did the pump manufacturer file a part 21 and notify you that, that this hydrostatic bearing was being retrofitted? You don't know or do you?

MR. MYERS: No.

MR. SCHRAUDER: It's, it's in France and they do not, have not issued a part 21. We're the only ones that we know of in this country that have this pump.

MR. GROBE: Do you get service letters or, you know, vendor reports or updates on that, on that pump? I'm just trying to figure out how the French decided to retrofit all their pumps, but you didn't hear about it.

MR. SCHRAUDER: I'm going to have to look into it, Jack. I don't want to speculate on what records we do currently get from them, but I'll look into that and get back with you.

MR. GROBE: Okay.

Question regarding the bearing material, this new bearing that they're using in the French pumps; is it the same material that you're going to be using to manufacture, since you're not having them manufacture the bearing itself, are you using the same materials?

MR. SCHRAUDER: The materials are basically the same. They're stainless steel pumps with the hardfacing. I'm not sure if the French use the hardfacing on theirs or not.

Bob, can you help me with that?

MR. COWARD: Our plan is to use a hardface hydrostatic bearing, a hardface Stellite. And, Pump Guinard, in their basic design, they use a slightly different base material underneath the Stellite that we plan to use. We plan to use ICONEL. We think that's a better combination of, for fabrication reliability. We think that Stellite and INCONEL is better. And we have gone through that with the French and they agree that that's acceptable.

And if I could help, since I'm standing here now,

Jack, your previous question.

Originally, there was the design developed by Pump Guinard in the 70's. Pump Guinard sold the licensing rights for the U. S. and North America to B and W Canada. B and W Canada is actually the quote, provider, the vendor of the pump to Davis-Besse.

After they supplied the pump to Davis-Besse, B and W Canada then sold those design rights to Heyward Tyler, a third party; and Heywood Tyler would be considered right now the nominal pump vendor and they have basically no link at all with Pump Guinard.

So, the fact that Pump Guinard identified this condition, this concern basically around 1979, 1980. At that point, since these other commercial transactions had occurred, there was no direct link from Pump Guinard back to Davis-Besse.

MR. GROBE: It's an interesting family tree.

MR. COWARD: Yes.

MR. GROBE: But it creates an interesting problem for you. The pumps are getting a heck of a lot more service in France than they are in United States. There is only one set of pumps, I guess, in the United States, in nuclear application.

Wouldn't it make sense that you had some connection

with Pump Guinard to get information, like service information letters or whatever they might call it with respect to the pumps in France?

MR. SCHRAUDER: Yes. And we have made contact directly with the Pump Guinard people. And we're going to have to work that relationship out with the French and how we get additional information that they might have on those pumps.

MR. GROBE: It might also be interesting to see what might have been generated in the last 10 years or 15 years since you started using these pumps in a safety-related capacity.

MR. MYERS: Jack, I've asked, tried, as soon as we get them off vacation, we're trying to offer to pay them a vacation over here to the United States, but we're asking them to bring some of their pump expertise over here so we can spend a week or two with them doing exactly that, and setting up the relationships that we need there. So, we're pursuing that already.

MR. GROBE: Okay.

A curiosity question for me. I'm not that familiar with your emergency core cooling system design parameters. What is the small break LOCA injection flow rate? Does anybody have that?

MR. MYERS: Yes, it's a little

bit over, this was right on the high head, about 300 gallons a minute.

MR. GROBE: 300?

MR. MYERS: Yeah, it's a .25 square inch break.

MR. GROBE: Okay. One more question. It appears that what you're doing is designed by testing, which is fine. Normally, in your Quality Assurance Program, you use well known engineering principles to design something and we have independent checks of those calculations and analyses that are performed. Are you doing this qualification testing under your QA Program?

MR. SCHRAUDER: It's being held under a regular QA program, yes.

MR. GROBE: So, there will be detailed written procedures with requisites and --

MR. SCHRAUDER: That's correct.

MR. GROBE: Good.

MR. SCHRAUDER: Now, we haven't -- I would say the verification testing has not been done under QA Program. Qualification testing will definitely be done under the QA Program.

MR. GROBE: Okay, good. When will the test procedures be written? Do you have a

schedule for that?

MR. SCHRAUDER: The test procedures will be written prior to running the test.

MR. GROBE: That's good.

MR. SCHRAUDER: The schedule will be done to support that, and the qualification testing is scheduled to commence around the third week of August. So, around the end of August, we should expect to start the qualification testing.

MR. GROBE: Okay.

MR. SCHRAUDER: The procedures are under development now.

MR. GROBE: As soon as those procedures are ready for review, I would suggest that you get them to Gene Imbro and his staff at headquarters.

MR. SCHRAUDER: Okay, will do.

MR. GROBE: I also understand we're planning a meeting, I think sometime in mid September in headquarters to discuss this issue in detail with the technical staff at headquarters?

MR. SCHRAUDER: That's correct.

MR. GROBE: That will be when the final design is completed; is that correct?

MR. SCHRAUDER: That's correct. We have kept in touch with them, I believe, and kept them

up to speed with where we're at in the testing, what's going on with the design and the like.

MR. GROBE: Good. I have one other question. On your slide 8, you talked about unrealistic large break LOCA debris combined with the small break LOCA flow. And then, on slide 13, you indicated that the limiting case is actually large break LOCA debris with what sounds like a slightly smaller flow rate.

MR. SCHRAUDER: It's actually a higher flow rate.

MR. GROBE: A little higher?

MR. SCHRAUDER: It's actually higher, yes.

MR. GROBE: So, in fact, the debris characterization was unrealistic for small break LOCA, but it's actually what the pump needs to be able to handle in the boron precipitation level.

MR. SCHRAUDER: That's correct.

MR. GROBE: I just wanted to make sure I understand. Thank you.

MR. SCHRAUDER: I think we can clearly demonstrate the conservatism in the debris loading that we have for this.

MR. GROBE: Okay.

MR. SCHRAUDER: With that, I'll

turn it over to Jim Powers.

MR. POWERS: Thank you, Bob.

I would like to talk this afternoon about the progress we've been making in our Electrical Distribution System at the plant. And as we reported out over the last several meetings, we have been developing and finalizing our Electrical Transient Analysis Program Results, which we refer to as ETAP.

And we're using ETAP as a program we selected to improve our analysis of the Electrical Distribution System at the plant. Its current state-of-the-art software that utilities are using in the nuclear industry.

And, we converted that from ELMS, Electrical Load Management System Software, which had been replaced in earlier years. The ETAP software allows us to model transients and with much more fidelity the details of the system. We're using it to add safety margin to the plant.

We got the initial results of those runs and we've been evaluating them and looking to see what needs to be done to support both the entry into the first Mode 4 for our pressure test of the plant, as well as the long term return to power operation of the plant.

And we're currently implementing design modifications to improve the whole distribution system at the plant. That's ongoing. Six modifications at the plant

to get ourselves prepared for the initial Mode 4 entry.

We're supporting the Mode 4 entry with an operability evaluation and we're going to be using administrative controls for technical specification voltage relay set points. And these are protective relay set points for the electrical process to be sure that all the equipment gets the appropriate voltage and electrical power supply it needs to perform its function.

We're also limiting the use of nonessential loads during our pressure tests, initial Mode 4, to prevent voltage degradation. And what we mean by that is some of the larger motors that are not required to support Mode 3 operation for the pressure tests, loads such as circulating water pumps and condensate pumps within the plant, which can draw electrical current.

So, we won't be operating those. We'll give Operations flexibility to maneuver and sequence some of those modes, but they will have prescribed restrictions on their use.

Also, we're going to give a clear definition of the qualified off-site and on-site circuits to be operable, requiring both of our circuits to be operable. That adds a good bit of robust margin during the 7-day test.

And we've been in contact with our Transmission Facilities Operator, what we refer to as ATSI, the grid

operator, on the voltage capabilities of the grid during the 7-day test. And the grid voltage capability looks good to support what we need during that time.

The projects status then. Once we've gone through the --

MR. THOMAS: Jim, real quick. Have you completed the opti-valve is it in line?

MR. POWERS: The opti-valve is heading in the draft stage now, Scott. We believe the visit that we made to the system operator yesterday by the team was the final element that we needed to give us the input on the system voltage, and now we have all the factors.

We have checked calculation from ETAP. That provides the basis. And we can factor all those with the op valuations, expect to have a draft approximately, I was targeting the end of this week for that, but we're also supporting the team inspection and juggling a few balls there, but that's the type of schedule we have. We'll give it to you as soon as it's available.

Project status. Finalize our grid stat, that's an ongoing discussion. Very active on our grid voltage criteria to the plant and plant operations.

What this means is the voltage on the supply grid that the plant needs to safely operate the half margin,

and we're working through that and the analysis.

And then, implementing modifications as required, and is required to eliminate the restriction of nonessential loads. So in other words, when we go to power operation of the plant for our second Mode 4 and turn to, turn to power, we want to be able and have to be able to operate our circuit powers, condensate pumps. And so we need to demonstrate the entire system will work appropriately, and have robust margins for safety going forward.

So, that's what we're working through now. And we expect to have that detail prepared within the next several weeks.

MR. HOPKINS: Let me ask you here, Jim. You talk about going forward. Are you looking at loading on the grid five years from now, ten years from now? How far are you going?

MR. POWERS: We're looking at, the grid operator does an operability assessment of the grid capability, and largely it's predicated on the local power plants that have been influenced to support grid voltage. Those local plants are the Bayshore Units, also the Fermi, Two Unit Nuclear Power Plants; that's our sister plant to the west, as well as the Detroit grid, as well as our own grid, with those of the more remote plants.

So, there is a contingency plan in place that they use, and also they do that predictive-type future, looking at what is a grid support capability of the plants that currently exist to all plants that are expected to be oncoming to changes in the grid configuration. So, they are in control of that grid voltage analysis, Jon.

MR. HOPKINS: But, they may be in control of it, but you stay aware of it, correct?

MR. POWERS: Correct.

MR. HOPKINS: Because you have to be in control.

MR. POWERS: Absolutely, and we have an agreement with them. One of the main reasons we're going down and visiting this week was to talk about the agreement and refresh both themselves and ourselves in how the agreement works and the contact and reporting relationship that we maintain.

For example, if they find down there that grid conditions could be such that the needs of the Davis-Besse plant are not supported, they notify our control room and there is an agreement in place to do that.

So, our engineers went down to see how that's working, what are the tools they have, and have that dialogue on what the plant needs based on our current ETAP analysis results. So that, that relationship is linked up

tight.

MR. MYERS: We also have, we're putting indication in our control room to supervise that also.

MR. HOPKINS: But you're also looking at it for five years from now or they are, that whole type?

MR. POWERS: I'll verify they're doing that, Jon. I believe, but I need to go verify that myself.

MR. HOPKINS: Yeah, because the way voltages change and everything, it could always end up with having to, you know, try and procure new transformers or, you know, new transmission lines or something to take care of what happens in the future.

MR. MYERS: Jon, we made a trip over to MIT.

Do you want to talk about that?

MR. POWERS: Thank you, Lew.

MR. MYERS: You're welcome.

MR. POWERS: That was one of the other proactive measures that the Electrical Analysis Team took was to go to IEEE. That's the Institute of Electrical Electronics Engineers. That was having a symposium several weeks ago; and it was represented by 17

nuclear utility representatives, as well as I believe there was a representative from the NRC in the electrical area there.

So, our Project Manager and one of our lead engineers went to present what the analysis results were, what the configuration of the Davis-Besse plant is, what the Electrical Distribution System, some of the results of the analysis and the proposed changed we intended to make to presafety margin in the Plant.

And got feedback from the benchmarking input to us. We're factoring those into our resolution of this issue. And that, so, that was pretty beneficial for us. We pretty much got a checkmark that we're on the right track to get this resolved effectively.

MR. HOPKINS: Okay, I don't have any more questions.

MR. RULAND: Jim, at one point you were talking maybe the second Mode 4, you might need a license amendment in this area. Is that still being considered?

MR. POWERS: Yes, it's still being considered. We're looking at several options on the final configuration of the system. One option involves the additional protective relay. And we are currently engaged in a design team dedicated to look at this option, and

we're going through the process now, looking at the regulatory screening process to see if a license amendment would be required.

We believe at the early stages that it would be required for that approach, but that's, but that option is not our only option. The design teams are also working through the components in the plant as an option to simply resolve what's in the plant at the base components and that's going very well.

So, there is a strong possibility that no license amendment will be required for the ultimate resolution. We'll notify you of our intentions at the earliest time in term of whether we will be submitting a license amendment.

MR. RULAND: Do you have a ballpark idea of when you think you would be able to make that decision?

MR. POWERS: I would say we need to caucus on it with our reviewers and also up through Lew on it, but I would say by the end of this week we could state our intentions on whether we want to pursue that avenue.

MR. RULAND: That helps, thank you.

MR. MYERS: We actually have a meeting on that at 1:30 today, but, you know, if we do have

to make a license amendment, it will be, you know, because we're in this conditional relays to the bus, over and above what we already have. So, I don't see it would be a very difficult license amendment.

And I also have a question. I think you can submit it as long as you have your operability review, you're still okay. I don't know that we would need it back before startup.

MR. GROBE: Jim, if you could make sure that you include the status on the potential licensing amendment in the Friday licensing call, it would be great. I think I saw Kevin in the audience. He probably heard that.

MR. POWERS: We'll give you an update at that time, Jack.

MR. GROBE: Great. You talked just a little bit about control room communication. It was my understanding that the data that's in the control room previously under grid voltage; is that correct; and how are you gauging that?

MR. POWERS: Well, the indication we're providing in control room now would be an indication of the switch yard voltage, so we're giving the operators the same indication that the system control center will have of grid voltage. So, that's a

modification that we're making this outage to improve the operator, the fidelity of the operator's view of grid voltage, Jack.

MR. GROBE: Will that be a specifically enunciated parameter?

MR. POWERS: I believe now it's going into computer points, which computer points are enunciated indications that are continuously monitored. It's not a window enunciator.

MR. GROBE: Okay.

MR. MYERS: I'll review that mod. What we're doing is fiber optics switch yard over to our admin building. What that lets us do is tap into the same picture that the dispatcher is seeing. So, we're really robbing his signal back into our fiber optics system.

MR. BEZILLA: What we're doing is improving our fidelity on the indication the operators can see. We have identification now, but it's pretty rough indication of grid voltage, if you will.

MR. GROBE: Okay. Will there be an alarm response procedure for that, just a computer point, right?

MR. BEZILLA: I don't know that, Jack, at this time. We'll have to look at the modification

to see what input it has to us, and if we can use that to help our operators.

MR. GROBE: Where I'm going with this, you're probably wondering where I was going with this, right? Where I was going with this, you're going to have an opti-valve that's going to have this parameter as a limiting condition in your opti-valve.

I was wondering how the operators were going to be monitoring that and what action it would take, whether that would be prescribed by a procedure?

MR. BEZILLA: I can take this. Yes, we have. Currently, we have the safety-related busses, the 4160 volt busses. We have installed relay and enunciation of low voltage on that bus. And that is really what you're worried about.

You're worried about the implant 4160 volt bus voltage, and this configuration off the, for this emergency Mode 4/3 evolution will be on the startup transformers and that bus voltage in the 4160 volt level will be indicative of the grid voltage being supplied to the plant.

So, that would be our warning system to the operators that voltage would be lowering on the bus and end up possibly causing any issues or concerns.

MR. GROBE: I understand what you said, I think, but I would have expected that the alarm

setpoint on that 4160 undervoltage alarm would not necessarily be consistent with the 99.3 percent voltage on the grid that you would be trying to monitor.

MR. POWERS: We need to work out that relationship Jack, to make sure it is consistent. Now the under voltage alarm we have on 4160 is set above the relay setpoints we're going to be establishing during the tests. So, it will be indicative to the operator that they have an impending problem with voltage. But we need to finalize our transmission grid voltage restrictions and then look at that alarm to ensure that it's consistent. So, I understand your point.

MR. GROBE: Okay. Then, so, you will have an alarm response structure?

MR. POWERS: We will have instructions to the operators what to do on the case of receiving that alarm.

MR. MYERS: On the bus, there is a D11, D11 alarms. We set those where we need to, so that they have initial alarms off our board, so if they see the busses are saying low voltage, the operators will immediately have enunciated the response to respond.

MR. GROBE: I apologize for thinking out loud here, but it would seem the alarm response instruction would be a different one in this

situation than would be a normal alarm response instruction for an undervoltage, because this would be an indication of inoperability; whereas, normally that would be an indication of something the operator might want to look into.

MR. MYERS: You talking about for the Mode 4 Test or later on?

MR. GROBE: I'm talking Mode 4 Test.

MR. MYERS: I think right now if you look at the Mode 4 Test, since we're connected directly to the grid on the transform, you're into the direct correlation between volt on the grid and in the plant.

MR. GROBE: What I was talking about, the specific required steps in the alarm response. It may not be consistent with what you want.

MR. MYERS: We may have to change it.

MR. POWERS: That's right.

MR. MYERS: We're looking at that.

MR. GROBE: What action would you expect if the operator gets an undervoltage?

MR. BEZILLA: I'll take that.

Jack, it's been awhile since I looked at the alarm response, like ten years, okay? But what I believe is, if you're off the Aux transformer, it would tell you to increase your generator voltage and increase your main generator output which normally slash in-house loads.

In this first Mode 4/3 evolution, you'll be off the startup transformers, if you would see the alarm come in, or you would see lowering voltage, it would be time to contact load dispatcher; say, hey, what's going on, we need to increase voltage on the grid. Okay.

If the load dispatcher would for some reason be unable to do that; at some point, the guy says to the operators, I believe to put the diesels on and separate the safety bus from the off-site power system.

That's what I remember.

Mike? I have Mike nodding out there.

So, that's what we would do. So, at some point, just say, hey, the off-site system is not doing what we need it to do and you would go to emergency diesel generator to supply your off safety busses.

MR. GROBE: Okay. We would probably be looking at the procedures and the setpoints for those relays. Thank you.

MS. LIPA: One other thing that you mentioned; I'm not sure if it was you, Jim or Lew,

but if you do have to submit the license amendment request, I think, you know, we're not sure now whether that would be required for restart or not. We have to caucus on that. I know you said it might not be, but our silence doesn't mean we agree.

MR. MYERS: I agree.

MS. LIPA: Then, I think we were going to pause for a break after Jim Powers. So, I'll let you finish, Jim.

MR. POWERS: And I think that covers my presentation if there are no more questions.

MS. LIPA: Any questions for Jim?

Okay, thank you. Ten minutes.

(Off the record.)

MS. LIPA: Okay. We're ready to begin.

Go ahead, Mark.

MR. BEZILLA: Okay, thank you, Christine.

My next slide, please.

The purpose of my presentation today is to first provide a brief recap of our plant's readiness for Mode 4 and 3; and second introduce our Restart Test Plan Manager, Rick Dame, who will be responsible for the startup plan.

Next slide, please.

As I have previously reported out, we are confident in our Reactor Coolant System, and its associated support systems and equipment. We have conducted both the 50 pound and 250 pound pressure tests of the reactor coolant system. We have now all four reactor coolant pumps and we have exercised most of the other support systems again associated with the primary plant.

We installed containment equipment hatch in June, and conducted a turnover of ownership of Containment Health in the Containment Health Project Manager to the Operations Superintendent in July.

In regard to the secondary plant systems, we established condenser vacuum and exercised various systems; for example, circulating water system, condensate system, feedwater system, and other secondary plant support systems.

In regard to plant modifications, we have completed or are working on a number of modifications that have restored or improved our margins of plant safety. For example, we've redesigned the containment sump strainer. We've installed a reactor coolant system leakage monitoring device known as the FLUS Monitoring Detector. This is a device used extensively in France, but this is the first utilization of this tool in the United States.

We're in the process of installing our boron precipitation modification. We're in the process of installing our high pressure injection recirculation line modifications, and this is for when we're in the containment recirculation mode.

In regard to the emergency diesel generator air start system, we have replaced all the piping -- most of the piping. Have upgraded a portion of the piping and we've included air dryers to improve the reliability of the air start system, which in turn will improve the reliability of our emergency diesel generators.

We also have a number of electrical distribution related mods in progress, and this is to ensure that our electrical distribution system is reliable.

In regard to Human Performance, we have stressed the importance of taking the time needed to do each job correctly the first time. Our people use the STAR Principle; Stop, Think, Act, and Review. And for technical issues, we utilize our problem solving and decision-making procedure/process. Rick is going to elaborate more on this procedure/process in his presentation in a few minutes.

Our supervisors do observations and provide feedback and coaching directed at improving performance. We have made some errors. Each error is thoroughly investigated and corrective actions taken to address not only people

issues, but also process and procedures and management and supervision opportunities. We strive for excellence, error-free performance on each and every task.

Preparations for our first Mode 4/3 Evolution. Part of our preparation is to review and prepare to execute our startup plan.

Next slide, please.

Lew and I have brought in an independent, not a Davis-Besse employee, but a FENOC individual --

MR. THOMAS: Mark, can we back up one, just real quick, before you introduce Rick?

MR. BEZILLA: Yes.

MR. THOMAS: Recently there has been some potential leakage identified on two reactor coolant pumps. Have you reached resolution on how you will address that issue?

MR. BEZILLA: Yes, Scott asked about our Reactor Coolant Pump 2-2 and some indication of leakage between the pump hole and the top casing.

What we did, Scott, was put our Problem-Solving Decision-Making Team together. They have formulated out what the potential causes could be. And what we're going to do is set up, I'll say, an observation plan for this first normal operating pressure and near normal operating temperature, our first Mode 4/3 Evolution.

And we'll determine if we have seal leakage between, there is two seals, there is an inner seal and outer seal. We'll determine if we have seal leakage from the inner seal and/or the outer seal and upon completion of this first pressure test, make a determination if we need to take action prior to restart.

MR. THOMAS: So, you're basically going to clean up the interface and watch it during the NOP test.

MR. BEZILLA: That's correct.

MR. POWERS: I might comment too. That's always been our plan as part of the Normal Operating Pressure Test of System Engineering Walkdown of pressure boundary reactor coolant systems; it was one of the areas we specifically wanted to look at.

MR. THOMAS: That's driven by procedure, right, that's the normal -- you check gasket leakage as part of your startup procedure?

MR. POWERS: That's right.

MR. THOMAS: Normally.

MR. POWERS: Right.

MR. THOMAS: I guess what I was asking, are you going to do anything differently for 2-1, because it exhibited potential outer gasket leakage?

MR. MYERS: We'll be watching

it very closely.

MR. BEZILLA: Scott, I also asked to put together a game plan. We have leakoff line capability between the inner seal and the outer seal. I've asked them to identify how we're going to sequence the observation of that leakoff line for the 7-day pressure test.

MR. THOMAS: Okay.

MR. BEZILLA: Okay. Back to preparations for the first Mode 4/3 Evolution. Part of our preparation is review and prepare to execute our startup plan. Lew and I have brought in an independent, not a Davis-Besse employee, but a FENOC individual to be our Restart Test Plan Manager for this first Mode 4/3 Startup Evolution.

The individual is Rick Dame, seated to my left. Let me introduce Rick briefly. He's a graduate of Ohio State University. Has a BS in Mechanical Engineer. He has over 18 years of experience in commercial nuclear power. He's also a Senior Reactor Operator license holder for a number of years.

He has extensive experience on plant startup testing, system leakage testing, system engineering, and ASME, American Society for Mechanical Engineering, Section ~~11~~ XI Test Programs.

Please let me introduce Rick, my Restart Test Plan Manager for first Mode 4/3 Evolution, and Rick is going to talk to you about our plan.

MR. DAME: Okay. Thank you, Mark.

MR. GROBE: Rick, I apologize for interrupting.

Before we go on, Mark, you talked a little about bit Human Performance. And the Resident Exit is documented in the July 30th report. There were several Human Performance driven violations that were documented in that report. What have you done since then and what experiences have you had through the month of July and August at this point as far as Human Performance errors?

MR. BEZILLA: Okay, from the Human Performance standpoint through the month of July, I believe for both Operations and Maintenance, we're pretty clean.

I have Mike -- and Mike, right?

So, we're pretty clean from an error and execution standpoint.

What we did, Jack, on some of those previous errors and issues, is we investigated those. In a number of cases, we found that there was, say, culpability on the individual's point. There are some process and procedure

enhancements we can make, and then there is, I'll say, improvements that we can make in supervision and management.

So, what we do is, I'll say in general, all right, because we had a few specifics. In general, we had an error, what we do is make sure the person is safe; the other individuals are safe; that the plant is safe. Get them out of the area, all right, if it's an at moment issue. All right.

We do fact finding. What are the facts surrounding the event, error or issue. All right. Then, what we do is make an assessment on, okay, is there individual culpability; is there organizational culpability; is there management supervision culpability. What I found in almost all cases is yes.

Then, what we'll do is calibrate the individuals as gently as possible. We'll make corrections to our process and procedures. And then we'll do a calibration on supervision and management as appropriate.

In those couple specific instances, we have or are in process of doing that.

MR. GROBE: Okay. Thank you.

MR. BEZILLA: Scott?

MR. THOMAS: So, you characterize the past, say, six weeks or so, as an

improvement in your performance as far as what, let's be specific in the area of Maintenance as far as procedure compliance, adherence to work procedures, those types of errors?

MR. BEZILLA: Yes. Scott, to my recollection, I think over at least the last month of July, I think we're pretty clean. All right.

And, I can't, Mike, I can't remember any. Can you?

MR. STEVENS: Do you want me to assist?

MR. BEZILLA: It was more of did you, but if you have detail, yes.

MR. STEVENS: Mike Stevens. I'm the Director of Maintenance at Davis-Besse.

There has been some incidents over the month of July. None of the significance I would say that we saw in June and discussed at that exit. And we're continuing to focus on identification of the error likely situation; stop it; getting assistance with our work support center; and then proceed with certainty.

What we're finding is, there is, as we ready work, we get into rule base, that's mostly how we work, by procedure. When we run into an issue, we break off into knowledge based errors. And I think we've improved in identifying when we make that change and when we need to

stop and get help.

MR. BEZILLA: Mike Roder, anything to add from an Operational perspective?

MR. RODER: Mike Roder, Operations Manager. We had as we debriefed the NRC last, Scott, we called it a configuration control issue. We've had zero configuration control issues in the month of July. We did institute additional measures, peer checks in the field, and additional lineups to mitigate those events. And we've been highly successful and we're very satisfied with those results.

MR. BEZILLA: Scott, just one other add on to what Mike said here about configuration control. Mike came down and talked to the shop specifically about configuration control, about what role Maintenance could play in ensuring and maintaining configuration control; and I think that was very positively received by the Maintenance organization.

MR. THOMAS: Okay.

MR. BEZILLA: Anything else?

MR. GROBE: I think we're ready for you, Rick.

MR. DAME: Okay.

Thanks, Mark, for the kind introduction.

Good afternoon everybody. We'll be discussing the

startup plan, which is certainly of interest to everyone in this room. However, before I get started, I want to talk about my specific role. It really breaks down into two distinct roles, but I characterize it as such.

First is restart assistance for the Operations Department. One of the things I bring to the Davis-Besse team to help out with restart is a very unique background with regards to not only having written a number of LOCA integrated tests, but also served as Test Director performing on both the Engineering and Operations side. A lot of those tests are very similar to LOCA sequence as far as startup at Davis-Besse.

Davis-Besse already had an existing Restart Test Plan, and what I'm going to help do is detail out such that there is ownership throughout the organization for the entire Restart Test Plan.

I'll also serve as Director of Corporate Operations Manager for Mike Roder, who is in the audience today. Mike will be responsible for the review and approval and ultimate implementation of plan that we detail out. So, that's my first role, restart assistance.

Second role is an independent assessor for Mr. Lew Myers with regards to organizational readiness of the facility for startup. You might ask what are my credentials for that. I served as a leading INPO host peer

for both Engineering, Operations and Organizational Effectiveness. Again, I'm walking in from the Perry Plant helping Lew out with gauging our organizational readiness.

Next slide, please.

Our Restart Test Plan is going to have three main objectives. The number one objective is we're going to start up this facility in a safe fashion and event-free.

Before we get into the startup sequence though, there's been a lot of talk about a 7-day leakage test. We'll go into some details about that, because that's the first big milestone that we'll be getting into in assessing the station's readiness for startup.

Second objective, we're going to successfully perform required post maintenance testing and modification testing. You heard Christine Lipa in the intro talk about a lot of different work done at Davis-Besse. I can tell you they have done a whole lot of work to improve safety margins, operational margins, and also preliminary liability. So, it's very important that we test all the equipment properly and make sure it lives up to our expectations.

Our third objective is that second role I talked about, assessing organizational readiness to effectively implement plant processes when challenged by any emergent issues.

Again, I talked about some of the things in my background that will help out with that. Additionally, believe it or not, at our last refueling outage, I was one of the Project Managers for a project called Emergent Issues. So, I should be able to help out Lew with that assessment there.

MS. LIPA: Rick, I know the second one will be documented in work orders. What about the third one; how will that be documented?

MR. DAME: We'll discuss that as I go through the presentation.

MS. LIPA: Okay.

MR. DAME: I want to share some initial observations again. I'm walking in from the outside and have been an evaluator for the Institute of Nuclear Power frequently as host at the Perry station. One of the things you always want to do to find out the pulse of the organization is conduct a number of interviews. I've talked to shift managers. I've talked to the Operations Manager. I've talked to in-field operators.

And then, not only talk to the people, you observe them, because behaviors are the most important thing in assessing our organization. I can tell you, based on my assessment, that the Operations staff here is well trained. They're experienced. They appear very

competent.

Initially, I talked to John, I believe his name is House, who was over in the simulator training area for Operations. I found out there's been a number of innovative simulator training scenarios already conducted to support plant heatup from Mode 4 to 3 and set up for 7-day leakage test.

Next observation is walking through the plant. The plant is in very good condition from apparent standpoint. In fact, it looks almost like a brand new facility in a number of places, so I think that's a very good indication of the amount of work that's been done here at the facility. But looks are one thing. Another thing is the performance of equipment.

I talked to a number of operators that have been involved with the return to service or equipment to service on the secondary side of the plant, and very encouraged to report that that equipment has performed very, very well.

Again, we still have some additional testing that we'll do. We haven't applied any steam obviously to the secondary side, but indications are that the workmanship that's been done is very good.

Next slide, please.

I want to walk through these bullets fairly quickly, then I'm going to walk through in a fair amount of detail

the Restart Test Plan.

Talk about the number one objective, that's to start the plant safely and event-free. The plan which I have before me will take me a couple more weeks to detail this out as I described, is actually going to take the plant from initial Mode 4 up to the hold period for the 7-day leakage test, the cooldown, and subsequent restart up to a hundred percent power.

I'll focus here on what we're doing for Modes 4 to 3 in preparation for the 7-day test, but that will all be covered in this detailed plan.

I'll talk about a concept called operator startup task, and the expectations we have for those. I'll talk about in a fair amount of detail the 7-day leakage test we're performing on the reactor coolant system. That's very, very important to all of us.

I'll talk about some of the key activities through the startup sequence and how we're going to get ownership to the entire organization for this restart plan. This isn't just an Operations startup; this is startup of Davis-Besse facility. We want everyone on site to engage and support Operations in the startup.

Last, but not least, this plan is going to have a lot of details involved with management oversight. We're going to institute what's called Infrequently Performed

Test Evolution, which adds additional management checks and balances to the startup sequence; and that will go 24/7 and, I know Mark has already put together a schedule with the management team as far as performing that evolution.

Okay, at this point in time, I would like to talk a little about this Restart Test Plan when I talk about level of detail that we're going to start including. I think everyone on the panel is familiar with what I would call Revision Two of the Restart Test Plan. That's for, that was in the, I think it was 5.d was the number for the Restart Checklist.

What this Revision 3 of the Restart Checklist Plan will do is summarize results of Rev 1 and Rev 2. What we did there is we obviously replaced the reactor at Davis-Besse. We conducted a 50 pound leakage test. We went out identified issues and we fixed those issues.

Under the first two revisions of the plan, we also performed a 250 pound test. Again, we did inspections and we found some issues, a little bit less, but we fixed those issues also.

Last, but not least, in order to install the new reactor head, we had to move it through the containment structure, so we performed an Integrated Containment Leakage Test. So, we'll summarize the results of those tests were all done successfully.

Talk about an organization or small organization that I'm going to set up, an Augmented Outage Management Team, and that's going to be the Restart Test Plan Team. Again, I'm helping set the table here as far as the plan going forward, but it's going to be up to Operations of this facility to carry it out.

This Restart Test Team will have a night shift and day shift owner. It will be SRO level qualified individuals. It will be supported by a team of individuals. They'll include a Post-Maintenance Test Coordinator, Post-Modification Test Coordinator, and also Test Directors and Contingency Plan.

I'm ready for the next slide, if you'd step back for second.

Okay, an additional aspect of the Restart Test Plan that we'll have. We'll have expectations for the entire organization. One of the key things is communication and execution of the organization. We're out in the plant, we see something that's unusual; the expectation is the shift manager will be contacted, shift manager will engage the organization accordingly depending on the significance of the issue. We'll get those expectations out to everybody on site.

Talked about startup test or task assignments. What those are, if anyone is not familiar with how I've done

shutdowns and startups in the past; and we've copied Perry, Beaver Valley, and other places in the industry; is we go through a large integrated test procedure and we pick out the key aspects of it.

We have detailed down about 150 startup tasks, we'll call them. Those tasks have prejob checklists already filled out for the Operations staff. They'll be practiced and assigned ahead of time before we get to performance of those evolutions.

It's a great tool to utilize to improve Human Performance. It allows your shift managers who are helping drive the schedule and improve their performance also. Talk about management oversight; it will all be detailed in this plan.

Talk about engaging the organization. Here's how we're going to do it at Davis-Besse. We've done a lot of work. We have all these post-maintenance tests that are, have to be executed. We're going to try to move as many of those outside the Operations Organization, which will allow Operations to focus on running the plant and starting up equipment and get that in the hands of the Maintenance Department, the Engineering Department, Quality, Rad Protection.

What that does is it really helps build some ownership of the whole startup sequence. If I'm a

maintenance individual that's rebuilt a valve, I would like to validate the level of craftsmanship, because I take pride in what I do. I'd like to be involved in the walkdowns.

If I'm an engineering individual who helped pick out the work scope for this particular outage, I would like to make sure that what I picked out is appropriate, the equipment's been working and running good. So, we're going to have those people out assigned to a day shift and night shift down to the individual who will be executing those post-maintenance tests. We'll have a matrix that will be utilized by the facility to help do that.

It will detail the whole startup sequence with regards again to Mode 4 up to 7-day hold, back down, and startup. That will all be contained in this plan.

Let's talk a little bit about the 7-day test, because I think we're all very interested. Talked about this 50-pound test we did on the reactor vessel, or 250-pound test.

Here's what's going to happen with our 7-day Normal Operating Pressure Test. We're going to ~~heat up~~ pressurize the facility up to 2155 psig. That's normal operating pressure. And what we're going to do is a series of walkdowns. In fact, I've talked to the people in Engineering with the Boric Acid Program. We have over one thousand separate

components we're going to be inspecting during this walkdown.

We've also set up teams in Maintenance, that the whole goal was to go out and do inspections. We want to develop a find and fixed mentality. So, as we find issues, we want to fix them. So, Maintenance already has a plan out there that if we find anything, how we're going to address that. So, again, the find and fix mentality.

During this leakage test, which I performed at my facility sort of a similar evolution three times, am very familiar with the whole process with the ASME walkdowns, is what we'll be holding during that test, and again, these walkdowns will occur, but we're also going to test some very innovative modifications we put in, specifically one that's been designed to help sense leakage in very small amounts.

I think the whole industry is actually waiting for the results in that, because we're a leader in that respect of that modification we put in. So, we'll be exercising that.

And, as Christine mentioned, again, confirm our testing, and as a past engineer on a similar system on a boiler water reactor, I should be able to help provide some assistance in that area.

Last, but not least with regards to this plan, any

good plan should always have a post-job critique. When everything is said and done, we'll come back and we'll take a look at results and incorporate lessons learned and the whole test approach what we're doing with this evolution will apply going forward. So, it will allow you to learn and improve going forward.

Next slide, please.

Talk about post-maintenance tests. Second main objective is to make sure that we do these right. I've already talked about a number of the bullets up on the slide here. Again, real important, the ownership of the post-maintenance test, getting that out to the organizations can really help out Operations.

Talk about some additional things as we're bringing back equipment. I'm in charge of equipment reliability in my facility. One of the most important things when you're bringing back equipment is watch its performance in monitoring any trends that may be exhibited. If something isn't going well, you want to have contingency plans in place to address those.

Davis-Besse has done a very good thing; they brought in a lot of their senior managers, both previous and past, to talk about things that have happened on startups; stuff that was unexpected. And they've already put together this list. We're going to have a list of contingency plans to

address all of those things historically that happened in the past.

We're also going to have night shift and day shift owners for those too. We hope we don't have to use them, but it's always better to be prepared; better safe than sorry. We have a whole list of those that will be incorporated in this plan.

Last point with regards to startup equipment and bringing it back. One of the things we're going to be about as an organization, not only at Davis-Besse, but FirstEnergy Nuclear, we're going to exercise effective operational decision-making principles if unexpected results are encountered.

Now, that's a lot of words up there. What's that really mean? What that means is, if we see something unexpected, we're going to step back, use one of the principles Mark talked about, STAR; Stop, Think, Act and Review.

We're going to utilize a document that the Institute of Nuclear Power Operations put together. This is December 2001, that contains six principles that we're going to apply to problems going forward. Davis-Besse is already using it. We use it at Perry. It's been very successful.

And we've also incorporated that into a document; that's one of the variants to help us improve Human

Performance. It's called Problem Solving Decision Making. Those six principles are mandatory to be utilized when management calls for a problem-solving plan. And those are all couched within this procedure.

I just wanted to touch on a couple of them. There's six of them. One in particular I wanted to, actually two that I would like to talk about.

One of the principles we will be looking at if we find something unexpected that we'll apply is -- one of the main principles is any conditions that potentially challenge the safe and reliable operation are recognized and promptly reported for resolution. That's very, very paramount with regards to how to maintain your plant in a safe and reliable condition.

And, again, there is six principles here. I just wanted to touch on a couple. Again, they're all important, but the ones I thought were most applicable to this whole startup.

Decision-making or decisions are based on full understanding of the short and long term risks and aggregate impact conditions associated with various options. Again, that principle is real important because you can make a decision for today that may not be the right one three years from now, or as Jon was talking about with the ETAP that Jim Powers talked about, five years down the

line. You want to assess and take a look at your solutions, how they're going to play out in the course of time.

There is four other principles. Again, these are all about making the right decision. If you apply this document properly, it will always point you to make the right decision, even if it means shut down the facility, fixing whatever you need to, and bring it up.

Next slide, please.

I want to talk about this second role in a little bit of detail with regards to what Lew Myers has brought me in to do an independent assessment for; and that's organizational readiness to effectively implement plant processes when faced with an emergent issue.

I mentioned I've been a Project Manager for emergent issues for my facility. I'm real used to using this process, personally because I was co-author of it, believe it or not. So, I do know a little about emergent issues and how to handle problems.

What we're going to do is put together a series of exercises that will help exercise these. One of the main objectives we would like to accomplish is we'd like to utilize techniques, actually own techniques is probably a better term because they are being used here at Davis-Besse.

Techniques that will improve operational focus and also Operations leadership. And, again, we talked about utilizing the problem-solving plan. We talked about communicating with your shift managers who will engage your organization.

One of the ways we've engaged the organization at Perry, which we copied from Beaver Valley, who probably copied from other leading performers, is the technique of utilizing a conference call whenever an emergent issue comes up.

Here's how this would work. Okay. Let's say I'm out in the plant. I see something that doesn't look right. I'll call the shift manager. The shift manager would then engage the organization through a conference call. The conference call would include your management team, both your senior leadership team and also your line management, and also typically the issue owner.

What would happen is everybody gets on that conference call. You talk about the issue. Assess the significance of it. Determine how your going to deal with it going forward.

Additionally, if you're lucky enough to be the issue owner, who I happen to end up being quite a bit, they ask what I need to be successful. So, we're going to employ those techniques here and hone those up. We'll be doing

that during our 7-day Reactor Coolant System Leakage Test.

We should have time to exercise that; and the second bullet demonstrates some of the different things we'll be looking at. And we'll get to put these together, Christine, again, in some sort of -- in the thought process, but what we would like to look at is things like emergent procedure issues; how do we handle that; how do we respond as an organization. Equipment issues; how do we set up for a significant root cause if one happens to come our way.

Utilization of this problem-solving issue process. Again, we already utilize it, but want to hone those skills because we're planning on transitioning from a shutdown facility to an online facility and we need to be able to find and fix things promptly and effectively. And I'll be, again, providing that input to Lew Myers with regard to what I see through those exercises.

So, with that any questions or comments?

MS. LIPA: Sure. So, as far as documentation of that assessment, is it just going to be feedback from you to Lew Myers; is that the plan?

MR. DAME: I think it's going to be more than that, Christine. Again, a lot of this is break down the thought process, and we'll be working, you know, quality will help me with some of the exercises. We

do have a self-assessment process here at FirstEnergy. I think that might be a good way to package that.

Lew, you can correct me if I'm wrong there.

MR. MYERS: No.

MS. LIPA: Thank you.

MR. GROBE: Just a question or two. What's the relationship, Rick, between you and Greg Dunn as far as work management?

MR. DAME: My relationship right now with Rick Dunn, I'm reporting to, actually Mike Roder. Okay. Outside of utilizing Greg as someone that can help facilitate activities, right now my reporting scheme is to Mike Roder.

MR. GROBE: Okay. I'm not sure I fully understand all that, but I'll get used to it over the next couple of weeks, I'm sure.

MR. THOMAS: Can I?

MR. GROBE: Sure.

MR. THOMAS: How, you said, this team will have 100 or 150 activities. Did I misunderstand?

MR. DAME: Actually the number of activities I was talking about is your startup sequence. What's happened or what we've done is we've taken a look at our integrated procedures. Specifically,

Scott Wise the Operations Superintendent with Tony Stallard, who is another Senior Reactor Operator; and we've picked out the tasks that we feel require a prejob brief and also practicing to be successful.

MR. THOMAS: Are these activities put into a schedule? Are they actually scheduled activities, or are these just the activities that need to occur during startup?

MR. DAME: Majority are scheduled activities. Again, we'll be detailing that out. I'm used to seeing every one of those in a schedule, so I know where they're at. But I'll be working with Mike, Mike Roder and Tony Stallard and Scott Wise to get those in the schedule to a level of detail we're looking for.

MR. THOMAS: I guess, I think that's what Jack was asking. We're trying to understand how you interact with your, the outage manager -- how your team functions in relation to the others.

MR. DAME: I'll give you an example of how startup tasks work. Let's say we're doing a scheduled activity; we're going to be conducting the heatup. That's one, called one big activity.

You'll have a night shift and day shift crew that would be trained and practiced in that particular activity. That activity would also be reflected in the schedule. The

whole team would know when that activity is coming up. And I've also detailed historically down to who is the night shift and who is the day shift owner of that activity in the Operations Organization.

So, that would be part of our whole startup sequence, but it's a piece of what Operations is doing to move the facility.

MR. THOMAS: Okay, but you also had some discussion about dealing with emergent activities and outside these 100, 150 tasks. So, that would require direct --

MR. DAME: Mark can tell you.

MR. BEZILLA: Let me try and help. Rick will be working with Mike Roder and his team to orchestrate the heatup, the sustaining and the cooldown on this first Mode 4/3 Evolution. The activities that Rick is talking about are things like bringing on condensate pump, bringing on feed pump, start reactor coolant pump, et cetera. Okay?

Now, once Rick's got that all orchestrated out, that's Mike Roder and Scott and Tony and the shift managers and operators; those guys will execute that. Then, Rick will switch into a different mode where he's working for Lew and I. All right?

Then, what he'll do is this oversight team that we have established, management oversight, if we're not already presented by things like an emergent procedure change, an emergent equipment issue, we're going to run some drills on the staff to see how they would handle a emergent procedure change.

Can I get a procedure change done in a couple of hours? I have an emergent equipment issue. If I don't have an emergent equipment issue, we'll simulate an emergent equipment issue. Like Rick said, talking about getting the team on, say it's 2:00 in the morning issue. Get the management team to respond and how would we handle that issue.

What we want to do is try to simulate some of the things that we know we'll encounter once we're restarted. We want to make sure we have the capability to deal with those types issues.

So, Rick's got two roles. First is help us orchestrate out this restart plan, if you will. Then, secondly, is to go in and run some drills and watch our behaviors on those drills.

Does that help clarify?

MR. THOMAS: Yeah, I think. I know I would like to talk more about these drills that you plan during the NOP test. I don't know that we have to do

it here. I would like to know more about that.

MR. DAME: Any additional questions?

MR. GROBE: Couple more. These drills or exercises, are these being conducted with the offgoing shift or are these going to be conducted on shift?

MR. BEZILLA: Jack, these would be, we get up and we're at normal operating pressure, normal operating temperature. We're at Mode 3, stable there, doing our walkdowns and stuff. If we have them occur, then they can watch to see how we deal with procedure changes and equipment issues.

If they don't occur, we'll have some drills in our pocket at 2 in the morning that say, okay, we would like to run this drill. This just broke, you just got this report from the operator in the field. What are you going to do? How are you going to handle that? Okay?

MR. GROBE: Will these be occurring in the control room?

MR. BEZILLA: Could be in the control room, could be in the field, could be in the shop, in NRP.

MR. GROBE: Let me --

MR. BEZILLA: Okay. So, this

would not be unusual to like running a fire brigade drill while you were running on shift. It would be similar to that type of thing, I think, trying to help.

MR. GROBE: It depends how many operators in the control room are engaged in the drill.

MR. DAME: I'll chime in here. Having been an operator with startups, I can appreciate limiting distractions to the crew. Really, what we'd like to do is see how the organization responds to support operations. So, the shift manager might make, he might initiate the drill, and from there on out, we'll really look at the organizational response to support operations.

So, really, that's how these drills or exercises would be put together. Minimal distractions that control the staff. We want to watch organizational response.

MR. MYERS: For example, you know, something when I first got my job as Chief Operating Officer, I made some calls, and at all three of our plants. And duty team on the weekends were expected to be at the plant. I called two of the plants and the duty managers were there, knew what was going on. I called the Davis-Besse plant, I found out that duty manager got an early morning phone call and didn't come into the plant,

you know. This didn't meet expectations.

So, we're going to make sure we have some clear understanding on some of those kinds of processes we expect to see in place and how would we change procedure. Do we have qualified people. We have an independent review process.

We have the organization in effect to routine operations without, without depending on the, the massive structure we have in place now. With the routine operations, would we be able to make a routine procedure change easily? Do we have the right qualification? That process has changed during the year we have been shut down.

It's a changed process. Corrective action process. You know, ownership, how is that expected to work for routine operation now. How does the shift supervisor, shift turnover process, how does that look now? So, we need to assess how we feel. I wouldn't use the word drills, as much as assess, how we feel about some of our routine processes and how we see them work.

For example, let's talk about, he was talking about the turnover process. In our other two plants, we have some meetings in a particular area, especially over at Beaver Valley. Oncoming shift does a sitdown, and not just the Operations Group, but the Chemistry guys, the HP guys,

Health Physics, I said that, Security, Maintenance, and we talk about all of the goals for that shift. I haven't seen that work here. I don't know how that will work. I'll know more after this.

Then, what we got to do is assess that, make the necessary adjustments we need to make prior to startup; right? So, that's what we're looking to do.

MR. GROBE: Okay.

MR. MYERS: I have a list of things.

MR. GROBE: I think I understand. And, let me just say what I think I understand, make sure it's correct.

As far as interface with work management, what you're talking about is activities going on in the control room. And work management would normally be scheduling those or task listing those, with Greg Dunn and his people.

But this is a separate kind of work management system for work going on inside the control room being conducted by the control room operators and the off-site operators; is that right?

MR. MYERS: I think that's pretty accurate. I mean, one of the things, we've been in this outage for quite awhile now. It's not that we've been

planning and scheduling all at the same time. We need to lay out a schedule, a group of scheduled activities during that time frame, and see how effectively we can implement those now. What would the normal scheduling process look like? How effective would we implement that at Davis-Besse? We'll make an assessment of that while we're up there.

Is it the same we would see at our other plants? I don't know the answer. The differences, I just don't know about. I would like to know those answers.

MR. GROBE: I understand that, and I think the exercise and drills you're talking about, all of those are going to be conducted consistent with process sequence as far as control room, core room, and discipline.

MR. MYERS: Absolutely. One thing we'll probably assess is the control room. What I call conduct of operations. What do you do for conduct of operations? You have shift turnover. You monitor the plant, right? You have operator rounds. How effectively are those things working for us? You need to understand that. Okay?

MR. RULAND: Rick, as you stated, you have some unique experience that you can bring to bear for this position. Your initial, your initial

observations in your slide are positive ones. I would think that given your experience, that you would have some areas that you thought Davis-Besse could improve on in addition to that.

Can you describe what those things you think, where Davis-Besse would improve in this area, given your experience?

MR. DAME: I can tell you right now, post-maintenance retest coordination and bring a heavy engineering side to that. That's one of the things I have a little bit of concern about. It's one of the reasons I'm here to help make sure that all goes well. Okay. So, that's something.

The other thing is just the interface between Operations and Engineering. I'm used to a little bit closer relationship between Engineering and Operations than I'm seeing right now. I'm going to help make that a little better.

Again, it's funny, if you go to my facility, go to the Engineering building, I'm a Resident Operator. When you go to Operations, I'm a Resident Engineer. I want to create that close knit relationship that really helps you out with regards to teamwork and going after emergent issues when the chips are down.

So, I'll try to help with regards to teamwork also

in that area, but that's something that I think could be improved on a little bit. So, those were two areas.

MR. RULAND: Good, thank you.

MR. DAME: Any additional questions?

MR. GROBE: I don't think so. Thank you.

MR. DAME: Thank you.

MR. BEZILLA: Next slide.

Okay. What I would like to do now is I'll briefly cover our Restart Milestones and then update you on some recent activities associated with those milestones.

Next slide.

One of the requirements in the confirmatory action letter was to take nozzle samples from the old reactor vessel head and ship those off to Pacific Northwest National Laboratory. We have done that. I believe we're in the process of confirming that the nozzles got there and you all have everything that you wanted, so we can get back to our confirmatory action letter. Just wanted to let you know that's being done.

Next slide, please.

Just briefly, these are some near term milestones. Transition from the Return to Service Plan to normal processes. All right, as we say get near the end of this

outage, what we would like to do is get into our normal outage processes; and as an example, we recommence the 0800 Management Team Open Communication Meeting. Part of that meeting is to review Condition Reports and make sure the appropriate ownership is there and that the classifications are correct.

Another item that we've done is turned the scope control back to the shift outage directors. So, those are the types of things we're talking about on this transition.

Installation of high pressure injection pumps. Bob talked about that. We're installing the as-was high pressure injection pumps for this first Mode 4/3 Evolution. We have to finish the remaining work to be able to go to the first Mode 4/3 Evolution. We probably have three to four weeks of work to be able to do that evolution.

Once we get there, we'll do the 7-day full pressure test. And what that will do is, as Rick said, it allows us to check out our systems, check out our processes, and check out our people. And we'll also execute the Restart Test Plan. There is a number of inspections and activities that we have to complete as part of that Restart Test Plan.

Then, upon completion of that 7-day test, we'll return the unit to Mode 5, and then we'll go ahead and

assess our performance; again, how did the plant do, how did our processes do, and how did our people do.

Next slide, please.

This is just a list of what we have accomplished so far in this outage. 62 Modifications have been completed, over 7,000 Work Orders, over 6,000 Condition Report Evaluations, and over 6,000 Corrective Actions. That's just, we've got a lot of stuff done since we've been in this outage.

Next slide.

Christine, you went into a lot of detail on your opening remarks. This is just a summary. Of the 31 items, 16 are done, 5 are completed and you all are in the process of checking those out, 3 need to have the Normal Operating Pressure Test conducted to be ready for review, your review, 6 we're working on, and then the last one is the confirmatory action letter. And, as I started out with, we're working to try to complete those items and make sure that's ready for closure also.

Any questions?

MS. LIPA: Mark, in reference to Slide 32, your last bullet was return to Mode 5 and assessing the results. What's your plan for criteria for assessing the results, procedure, and what's your plan for documenting that assessment?

MR. BEZILLA: As an example, from a plant standpoint, as Rick said, we've got over a thousand components in the Reactor Coolant System as well as secondary plant walkdowns, so we'll use that 7-day period to go find any leaks or equipment problems that we'll need remediated.

From a process standpoint, as we said, we'll be conducting assessments on how we utilize some of the processes that we may have not used over the last year and a half or that have changed while we have been in the outage.

And, then from a people standpoint, we'll monitor the behaviors, our procedure use, our ability to stop when we have questions or doubt. And, so we'll be doing a number of management observations. We have round-the-clock senior management coverage for this period, in our Quality Organization, as well as Rick assisting, we'll take a look at, I'll say, our behaviors and he will provide an independent assessment of how we did during that 7-day test.

So, what we'll do is roll all that up, and then in our restart readiness for startup, we'll go through that process review of our people, our plant and processes prior to hopefully the second Mode 4.

MS. LIPA: Okay. So, that's

really what I was looking for. You plan to roll this all up and this would be part of your proceduralized restart readiness concept?

MR. BEZILLA: Correct.

If nothing else, I would like to turn it over to Lew.

MR. MYERS: Thank you.

The industry definition of Safety Culture is that assembly of characteristics and attitudes in the organizations and individuals which establishes an overriding priority toward nuclear safety, and finally ensures that these issues receive the attention warranted by their significance.

First, I would like to take a few moments to status you and the public on the Safety Culture Assessment we performed in July. That assessment was in preparation for the upcoming Mode 3 temperature and pressure test.

Next, I would also like to brief you on our multiple barriers to safety. These barriers are now anchored in the organization at our Davis-Besse station.

The definition for Safety Culture contains several important words, like characteristics and attitude. Characteristics and attitudes have significantly been strengthened in both policies and procedures. These characteristics and attitudes are now measured and assessed

in the organization; both in our managers and our people.

The activities that we perform today receive management oversight by our Management Observation Program and independent oversight by our full assurance organization and safety review boards is truly independent.

Today when we have issues, our Corrective Action Program and Decision-Making Process ensures the proper classification and then resolves those issues.

Next slide.

Our process establishes both ownership and accountability by the site management team, as well as convergence through independent reviews. Peer reviews, contractor assessments and quality oversight, independent assessment of safety culture ensures these convergences.

Contractor assessment is provided by several industry experts. For example, Lawrence Martin, an experienced executive, also participated in our meeting. He is a proven experienced executive of TVA, a South Texas Project during extended outages.

Mike Ross is an experienced executive from Three Mile Island. He has held many successful positions, is well known in the industry.

Additionally, the Institute of Nuclear Power Operations provides us with industry peers from top performing plants, in both Operations and the Maintenance

area.

Quality Assessment performs their own assessment for Safety Culture prior to our meetings. They participate as an independent part of the management segment to assure convergence.

Each Safety Culture attribute is assessed internally, and then a two-day meeting was held by the entire management team to review the results of these assessments by the peers. Some criteria, such as open positions, are presented by the Human Resources Group and assessed as the, by the peer team of managers.

Our employees also play a significant part in these assessments through survey performance as part of the 4-C's Meetings as well as Town Hall Meetings.

We believe that our process is strong, and has an industry base, because our methods of convergence combined with peer reviews that finally result in the management ownership in the alignment of our issues.

Next slide.

As you recall, the industry accepted model consists of three commitment areas. They consist of Policy Area Commitment, Plant Management Commitment and Individual Commitment Areas. Each of the commitment areas has specific attributes that are established to monitor.

For example, the Policy Level Commitment Area has

five attributes consisting of a statement of policy, management value structure, resources, self-assessment and independent oversight.

Next specific criteria establishes in our process to monitor these attributes. In fact, the criteria feeding each attribute consists of approximately 40 pages of questions. Sometimes the same or similar questions are used and are appropriate to be used for more than one attribute.

We have four labeled attributes and criteria of our process to that of the independent assessment that was performed by Doctor Sonja Haber. We now believe our process is much more objective using our specific criteria.

We also established convergence using multiple measures to monitor our conclusions. Once again, the two assessment methods are very well aligned.

The first Policy Commitment Area has to do with messages, attitudes, and environment that the executive leadership team, the quality oversight groups and plant leadership should be established within the organization.

Next, the Management Commitment Area has to do with methods used to perform the day-to-day activities. We establish and then anchor the work requirements within the organization and individuals through training programs, our

programs, our processes and our procedures.

Third is the Individual Commitment Area. This commitment is very objective, and that the training effectiveness, activity monitoring and assessment all have received the criterias used to monitor plant activities.

For example, the Corrective Action Program is the key trending, is the key to trending plant equipment and personnel performance issues and how effective that we are in addressing our problems.

As you recall, the last assessment rated all three commitment areas as yellow. This would indicate that management actions were needed or ongoing action plans need to be in place. Many actions are now complete. I will show many of our complete actions later, yet much is yet to be done using the action plans that we showed you in the early meetings.

We do believe we have made good improvement. Both the Policy Commitment Area and the Individual Commitment Area are now rated white. Once again, they were yellow before.

Next slide.

I have prepared the next slide to demonstrate the Barriers to Safety -- the Barriers to a Safety Event. No one area, no one attribute, nor no one criteria fell would result in an event taking place. The barrier process is

the reason for developing criteria for management actions needing to be taken prior to moving forward. We would not move forward with any of the commitment areas rated as red.

First, we take strong actions to resolve commitment area of concern. Note that red rating in one of the attributes which require a Condition Report and strong senior leadership review prior to moving forward. Additionally, we captured each and every groups rating a specific criteria and performed a senior leadership team review of the actions that we need to take from a collective significant standpoint.

Our Safety Culture Assessment is only part of our Restart Readiness Process. For example, it is not, it does not measure plant material readiness. We do sit down just prior to changing modes with each and every manager and review why he or she is ready to move forward. We review our System Health, our temporary modifications, our operator workarounds. We involve several of our craft employees, our operators, and our systems engineers in this review to ensure alignment of the entire team.

Next slide.

This slide provides the first Barrier to safety. Independent Oversight consists of the Executive Leadership Team, Corporate Program, the Plant Program

Owners, the Plant Senior Leadership Team and the Quality Oversight Groups.

Many actions have already taken place to strengthen the independent oversight barrier. We have combined our Quality Oversight Group and Quality Control Group organizations. We now have a VP of Oversight that is independent, and reports directly to the President of FENOC, and also reports to the Nuclear Committee of the Board.

The Combined Nuclear Safety Review Board has many new members that are proven industry leaders. The charge has been strengthen to focus on safety. This group is now more involved with station activities and even the County Business Administrator is an active participant.

Bill Cottle, a proven industry leader, is now Chairman of the Nuclear Committee. He is also a member of the FirstEnergy Board of Directors. Bill is an active participant in Policy Commitment Area.

Our Safety Conscious Work Environment Program is more proactive. We now have independent issue reviewers to help improve our employees concerns of confidentiality.

The state is no longer in isolationism. The Institute of Nuclear Power Operations is providing peer reviews in Operations, Maintenance, Health Physics and Engineering. I am very proud of the accomplishments that

we made in our Health Physics Organization. You can see the changes in rigor during daily activities. Our employees in that group in my mind now have great morale.

The next slide focuses on the changes that have been anchored in the Management Commitment Area. I am pleased with the new management team. All of the managers are proven leaders. They all have good technical education. They have Senior Reactor Operator's License or Certifications. Most importantly though, they helped aligned themselves as a Management Team.

During the middle of all the work pressures that we faced, they have taken several days and weekends to come together and align themselves with the Senior Leadership Team. We have met several times on the weekends to ensure consistent standards.

The Operations Group Ownership Plan is assuring alignment between the management and our operators. Operations is now involved with most station activities. We are turning the plant systems back to them in good condition.

Our Management Observation Program is showing the delta between the management observations and supervisor observations are closing.

The Engineering Assessment Board ensures quality engineering products. This was not a temporary fix. We

have anchored this board in our process.

We now have elevated the Project Review Committee to ensure good line ownership. The Director of Operations now chairs the PRC at all FENOC plants to ensure line ownership of station projects. We also have a corporate PRC providing an additional layer of review to major projects. Either the Executive VP of Engineering or Chief Operating Officer, myself, would chair these meetings.

Our Supervisor Training Programs and Managers, Managers and Supervisors Evaluation Program has, now has two new processes. Both Nuclear Professionalism and Nuclear Safety are anchored in this process.

Next slide.

The next barrier is part of the Management Commitment Area and Individual Commitment Area in our programs. This area focuses on the changes that have been made and have been anchored in the methods we use to accomplish plant activities and ensure these activities receive the attention warranted by their significance. Sound familiar as Safety Culture?

Our Operating Experience Program and Corrective Action Program has been strengthened. We can all see many material and program improvements that have been made during this outage to improve safety margins. We demonstrated several today.

The Boric Acid Control Program and Training Program, and our training of that program is now industry standard. The integrated RCS Leakage Program, Reactor Coolant System Leakage Program is now the first of a kind. The Radiation Protection Program is greatly improved. We now have 65 engineering programs that are routinely monitored and assessed for their effectiveness. We believe this sets a new industry method of assessment.

Our System Health Reviews that we brought from our Beaver Valley Station are noted for improving plant performance. Our Problem Solving Nuclear Operating Standard is a systematic approach to ensure station issues receive the attention warranted by management.

I believe that if we had had this standard in place, we may not be sitting here today discussing reactor vessel head.

The final barrier is focused -- next slide.

The final barrier is focused on our individuals, our employees. How do we expect -- how do we set our expectations for behaviors? Technically driven employees with the correct environment are the best barriers for nuclear safety.

I have taken many actions that are not listed to ensure that the correct people, correct -- the qualifications are good, and the environment to do the job

correct the first time is in place.

We have had 50.9 Training, Safety Conscious Work Environment Training, Operability Evaluation Training, our Corrective Action Program Training, Root Cause Training, Ownership for Excellence Programs, which we started one today; and our SRO Training Program, Case Study Training, Standards and Expectations Training, and Plant Access Training.

MR. THOMAS: Lew, what's the status of the 50.9 Training? Has all the staff attended that or is it --

MR. MYERS: Excuse me?

MR. THOMAS: Is it planned for the whole staff?

MR. MYERS: Yes, it is. There may be some stragglers, but I believe everyone's had it already.

MR. LOEHLEIN: Most of the organization is done, but I don't have the latest number.

MR. MYERS: I can look up the number, I think there is --

MR. THOMAS: Have you seen any, I guess, fruit from that training?

MR. MYERS: Absolutely, you see fruit from the training, I believe Maintenance

especially. And I know I've seen some fruit from that training, I think, in some of the licensing issues and documents we were looking at, probably harder than we used to, so I see quite a bit of fruit from the training, definitely. It definitely revitalizes your attention on what your seeing.

Next slide.

In conclusion, with a strong Safety Culture consisting of strong solid barriers that resolve challenges to events, we will effectively implement a new FENOC Vision. The new vision which we're just getting ready to roll out is, "People with a strong safety focus delivering top fleet operating performance."

Thank you.

MR. GROBE: Just one question, Lew.

On Slide 38, you presented our recent Safety Culture Assessment results. And I know that was done to, I think it was revision five of that procedure. And you compared this assessment to prior assessments. How similar are the criteria and methodology in the various revisions, such that in fact those are comparable?

MR. MYERS: You know, each one of these evaluations, each time we go through the criteria, we find improvements. You know, one of the things that I

showed you, I think I have here is -- do you have that document?

Yes. Before we were not taking each and every criteria and looking at it holistically. We are now doing that. The procedure has been through five revisions. And, we've added, actually added some new attributes, two new attributes have been added. So, we're getting rid of, doing Revision 6 now based on the last meeting we had.

One of the things we did, one of the areas, the attributes was rated red, did not really grade out as red, it was yellow. We made a decision as a management team that we thought it ought to be red. So, our procedure doesn't really spell out the management judgment we use. So, we're going to clarify that. Okay?

So, Rev. 6 is getting ready to come out.

MR. GROBE: Okay. Thank you.

Any other questions?

MR. RULAND: Lew, you stated that your process was, I think it was quote, much more objective than the process that the NRC uses. Could you elaborate a little bit on that, why you think that was the case?

MR. MYERS: No, I didn't say the NRC, I said the Sonja Haber report.

MR. RULAND: I'm sorry. Okay. Could you elaborate on that then?

MR. MYERS: Yeah. You know, the way they did that is a group of people come in. They come, attend the meetings, they watch the plant, they ask you questions, they take some surveys. And they have convergence of their processing because of the different ways they approach the same issue.

We have that same kind of convergence in the way we use our quality root to do their own independent assessments in our meetings, the contractor we have on that. So, we have a convergence with them.

What they didn't have, we have. After we did our two-day meeting and people bring in their assessments with all the peers; by the time we do our assessment, you have very, very good management alignment on the actions that you need to take place.

So, when we walked out of that meeting, I feel we walked out with good alignment. Here is the things we need to go get done. In my mind, that's -- I've even attended the ACRS meeting recently. That alignment we have with our managers and senior leadership is a strength.

So, not only do we have, and if you go look at our criteria, we now have, what, 40 pages of criteria. I don't think their process was quite as objective as ours. They

had some surveys that were objective, but we can go out and measure new performance error rate, procedure error rates, things like that. A number of temporary modifications that they didn't really have. Backlog in their process that it's much more objective, our measure for Safety Culture, especially in the individual area.

MR. RULAND: I guess, maybe it's a semantic issue, but they have, clearly your process was more detailed. It clearly was more scrutible. You had a lot more objective criteria, the criteria clearly was more objective.

MR. MYERS: Right.

MR. RULAND: And kind of balanced against that, is the Sonja Haber report was done by people that were independent of your folks. And it's not, your process, really you don't have necessarily that independence.

MR. MYERS: You know, we have our Quality Group. They performed their own self-assessment independent of Safety Culture prior to coming to our meeting. Additionally, we have two or three contractors that we use, and we also use the feedback that we get from the Institute of Nuclear Power Operations, where we brought peers in before as part of that process to help us out in Operations.

You know, I spoke with peers going into this process, like three, two or three other plants they had been in. So, we do have quite of bit of independence also.

MR. RULAND: I understand. I'm not objecting to your process, I was trying to understand what your words meant. Thank you.

MR. MYERS: Okay.

MR. RULAND: One more question, sorry.

MR. MYERS: Sure.

MR. RULAND: You said something about, when you were talking about slide, the recent Safety Culture where you put up that diagram with the yellows and the reds.

MR. MYERS: Right.

MR. RULAND: You talked about Corrective Action Trending.

MR. MYERS: Right.

MR. RULAND: How are you doing Corrective Action Trending on CRs these days? Are you looking at that?

MR. MYERS: Oh, yeah. What we have, our other two plants that we implement here, we have a standard group of performance indicators that we look at

routinely on, from our Corrective Action Process, from a trending standpoint; a number, the number of procedure changes outstanding, training issues, trying to remember all the things; individual error rates. Things like that we trend, they come out of our Corrective Action Program.

Again, we have a Nuclear Operating Procedure that's in place we're not implementing here at this time because of the outage. It's a Collective Significance Review Procedure, and it's a business practice. And what we do on that; I think Christine has observed that; we collect all the data we can from the Institute of Nuclear Power Operations, industry issues, NRC findings, stuff coming out of our Corrective Action Program; pull that together; try to vent it, then we bring it into the Senior Management Team and take approximately a half a day to figure out what this tells us what we need to go do with that data.

MR. SCHRAUDER: Bill, we just recently got Region III, had a meeting down there. We discussed training, and did identify that the formal part of the Condition Report Trending Process had been suspended during this outage period, and we are just reinstituting that.

And the System Health Reports do a lot of trending for equipment and then the Condition Reporting Trending Process will show you other trends which you're

identifying, but that process is just now in the stage of being restarted, I'll say, and we're going back to feed data into the last couple quarters worth of data that we have to bring that forward, so.

MR. RULAND: Thank you.

MR. MYERS: Steve.

MR. LOEHLEIN: Thank you, Lew.

In previous meetings with the NRC, I pretty often listed some of the specific observations we made in Quality Assessment. Today, rather than repeat that format, I would like to update you on how QA is conducting its assessments to ensure readiness for restart.

First, I would like to report on Quality Assessment's approach in confirming completion of the item necessary to ensure the station's readiness for restart, which is both from an equipment standpoint and from an organizational standpoint.

Next, I'll discuss what Quality Assessment has been doing to ensure its own readiness for station restart.

And, finally, I would like to share with you some of the assessment activities we have planned for the upcoming plant activities that are associated with the Mode 4 and 3 Normal Operating Pressure Tests.

Overall, I'll say the theme of my presentation is that the organization is entering a transition from its

recovery actions towards more normal conditions. And this transition represents opportunities for QA to evaluate how well the changes that have been made, how well they've been internalized by the organization and we'll be able to assess whether improvements are continuing.

Next slide, please.

In terms of the Readiness of Systems and Equipment, up until this time, confidence that we've been gaining in the plant's readiness for restart is being achieved largely through the continuous oversight of the Return to Service Plan.

We've reported here in prior months about things that QA has found along the way, how we've been involved with the start of the Return to Service Plan. Provided input. You may recall that we independently reviewed several systems to ensure that the System Health Review Process was working.

We monitored and confirmed that there was proper management decision-making that took place and determined restart related activities both for equipment and for processes. And, that the required restart actions were identified to the proper mode. That's what we've been doing up until now.

We've also been monitoring the management oversight, the key equipment of problem resolutions. Most flagrantly

and most notably the operation of the plant support center, which is carrying the major remaining issues there on the status board. You can see management oversight.

And, recently the System Health Reviews that were done during the Restart Readiness Review Process.

So, going forward now, we're going to continue to monitor and assess the resolution of the key remaining issues. For example, the high pressure injection pumps. QA has twice now visited the testing facility and provided for the line and what we see there and we'll be returning there at the time the qualification testing is done. And we'll continue to follow the others using the plans we have in place, things that cross these modifications and so forth that still remain.

What's going to be changing is, up until now, for example, a new issue would be identified on a Condition Report, went to the Restart Station Review Board for scoring and pre versus post restart, and ultimately was an important enough issue to track in plant support center.

As of this past Monday, the organization now is returning to the more normal process of reviewing Condition Reports at 8:00 in the morning meetings. So, we have an opportunity now to begin to watch how the organization identifies an issue. How well does the management team respond to it for categorization, priority, and assessment,

as to whether it's part of this outage evolution or whether it's an issue that can be dealt with in the future.

Next slide.

Because of its critical nature, the Corrective Action Program has received a lot of attention, lot a scrutiny by QA of late. This took the form of two key actions. The first was a review of the extensive population of corrective actions. The review was led by QA, included many people from the line organization and even some off-site people that we used from our other two stations.

A couple of months ago, QA reported an issuance of insights of this review to the NRC at another meeting like this. And since that time, the review team has completed that review. As a matter of fact, we finished and signed off the transmittal report to Lew Myers just today, to the management team.

What I've got up here is the overall summarized results. This Corrective Action Review touched on nearly 7,000 Corrective Actions overall. Of those, 5402 of those have gone all the way through the process and were reported as complete. So, that's the number you see here, completed Corrective Actions. Of course, the primary objective was to see Corrective Actions were implemented as expected out of the condition that was originally identified.

Of those 5402, the team determined that 92 percent approximately of those, were found to acceptably address the issue. 422 cases of what they looked at or 8 percent were inconclusive or unacceptable.

I might mention too, I forgot to mention. Of the 5402, that included all of the restart related actions that were completed at the time of the review, and several thousand additional ones to increase the sample size.

Now, we pretty much saw an even split in the types of errors that the team identified. The one type the team called documentation errors. These were cases in which the team's belief from their review and investigation into the actions, appear to be proper actions, but the documentation of exactly what took place is in some way less than accurate.

The other type is the documentation linkage could not be made as clearly, based on the documentation that was available. Those cases, we just were not able to determine whether or not a proper Corrective Action was done; therefore, those are the cases that represent potentially issues that require additional work. For all of these 422 cases, they're all represented on Condition Reports that the team has written.

I might say that in all the thousands they looked at, there were only a handful of cases, less than five, I

believe, in which an actual error was found. In each case, they got their specific Condition Report written because of it. And none of those conditions were significant. They were lower level type of errors.

So, the overall conclusion of the team was pending the outcome of the new Condition Reports which have several questions associated with them, that in general issues, none appear to have been lost, but the documentation of the activities needs improvement.

MR. GROBE: Steve, I would like to try to hold my questions to the end, but you've covered several different topics, so I would like to ask a question to you.

MR. LOEHLEIN: Okay.

MR. GROBE: I'd seen some of this activity process, and the error rate originally reported was a little bit higher than what I'm seeing here. What, what happened as you were finding data to result in these final error rates?

MR. LOEHLEIN: That's a good question, Jack. What the team did, is the first time through, they went through a simple vending process. Those that clearly fell from the documentation place, seemed to be no question that they were acceptable, they would have been, I think at that time, that was on the order of 80

percent or so, were found to be that way.

Following that initial screening, those 20 percent or so, were viewed as inconclusive, based on unknowns at that time, potentially problems with them.

Most of the ones that were eliminated following that initial review were all of the type in which the Corrective Action implementation was dependent upon capturing of a record. Usually it was capturing of a photograph, an as-left condition of a component. Those Corrective Actions were relying on a process that would capture those and see that they got to the files.

The team at that point was still not comfortable calling those okay, those processes in place, until they were able to go back and pick quite a number of those at random and confirm that the process was indeed capturing those and they were indeed ending up in Condition Report files.

So, once they were able to conclude that was working, those all went from the inconclusive state to an acceptable state; and that was the primary reason for the drop in percentage.

MR. GROBE: Thank you.

MR. LOEHLEIN: Any other questions on that?

We have provided, Corrective Action Team requested a

copy of that report; and we're doing that, we're providing that to that team.

Next slide, please.

The other major activity associated with the Corrective Action Program was focused assessment of the program. And we conducted that as part of the second quarter of continuous assessment activities. Really, this was prompted by several different indicators; one was the day we were getting on this review. We also, QA had rated the Corrective Action Program marginally in the quarters leading up to this, and the response to all that feedback by the Performance Improvement Group was to generate some process changes and some responsibility changes to make improvements. So, QA was very interested in assessing the initial impact of the program changes.

I might also add here that the data I just showed you on the slide before this was primarily historical data done prior to the process change which occurred in March. So, what we needed was a good solid read on the Corrective Action Program effectiveness as it exists right now.

Listed up here are some of the major things, some of the way we approached this assessment. We interviewed managers, Condition Report analysts and other personnel involved in the process. We did oversight in Corrective Action Review Board and the Management Review Board. We

sampled Condition Reports for quality work and compliance with procedure and we also sampled rollovers to check they had been performed correctly.

Next slide, please.

My conclusions that the Corrective Actions -- or that this focus assessment came up with, is the Corrective Action Program currently is satisfactory in identifying, finding, and fixing problems, essentially.

What we found is the process improvements by this time now, which began in the second quarter, in the June timeframe; by that time, changes were beginning to have impact on the organization, and we were seeing improvements in performance in that regard; finding and fixing and identifying problems.

We had referred about before, we talked about trending. There is no data for us to evaluate the effectiveness of trending, because it's suspended, our extended outage, and that needs to be in place for the future health of the program.

We also identified that the organization needs to improve its use of performance indicators to help target what it does.

The other major message is that the organization needs to continue to emphasize improvement in implementation, because although we've seen improvement,

vigilance is really necessary here. The organization is going to be changing back to routine methods and needs to demonstrate the Condition Reports are properly categorized, that the potential for collective significance is recognized, and that management properly prioritizes issues.

So, I view this as one of the key things we need to monitor as Rick Dame, all of his activities he has planned. As he has said, when the plant has a return to its processes that are more normal, it's really important that these improvements continue to occur in these areas, and QA will really be continuing to look at that.

MS. LIPA: Steve, the question I have about this trending, we talked about it a good bit today. Your first conclusion is that the program was satisfactory in finding and fixing identified problems, but I wondered how you factored in the fact that trending had been suspended, because trending is a way to find problems.

MR. LOEHLEIN: Right. We've talked about that as for, for prepared issues conclusion to management, the importance of that.

What we have now though, or had, didn't quite go over that last number of months, is we had that done almost in an ad hoc way. We haven't had a computerized process to

trend data, but we've had very involved management.

I sit in on a tremendous number of Senior Team Meetings in which the issues are discussed with the System Engineers and Engineering Management and Operations and Maintenance and so forth. And between that and the actions of the Corrective Action Review Board, Engineering Assessment Board, other people involved, what we had is lots of opportunities to recognize the significance of the issues.

So, the challenge will be as the organization goes back to using its more normal processes and relying on the Work Support Center which normally controls scope sufficient to an outage, and relying on the Management Interface Meetings to recognize priority significance, the key thing is for QA to observe that transition to occur.

So, our feeling on trending was, that the decision was valid in terms of trending up to now, but go back to the process, trending is going to end up, for the future, is an important part of a tool for the team to use, more importantly, expand where all the oversight that's occurred in the last number of months.

Does that answer your question?

MS. LIPA: Yes, thank you.

MR. LOEHLEIN: Next slide, please.

MR. GROBE: Sorry, Steve, just one additional question.

MR. LOEHLEIN: Okay.

MR. GROBE: On your previous Slide 49, you indicated a number of areas --

MR. LOEHLEIN: Sorry, Jack, I can't hear you.

MR. GROBE: Sorry. In your previous slide, on 49, you indicated a number of areas where you've examined, and including the Corrective Action Review Board, Management Review Board, and other areas. I didn't hear you mention an assessment of Condition Reports that had been downgraded from significant conditions to conditions or an assessment of Condition Reports that have been deferred from restart scope to post restart scope. Have you looked at those areas?

MR. LOEHLEIN: We have done a lot of monitoring of the Restart Station Review Board that did, that made those decisions and calls. And what we've been watching for, you're probably aware of this, Jack, is that part of the process change was to redefine some of the categories.

So, the old, the old what we call Charlie Alpha, the condition adverse to quality level with an apparent cause was a much weaker category in terms of what was expected

out of it, there was no expectation for extent of condition. There was no need to write down any cost analysis basis.

That shifting of categorizations caused a lot of people to rethink when they were doing their work, whether they now, whether the Condition Report had been written prior, whether it was now proper to recategorize the new process. And, we monitored that and found that the Restart Station Review Board was categorizing correctly, and spoke up when we didn't think they were.

There may have been a few cases, I believe there were a couple cases in which Condition Reports we thought the Board should not have or should have and we identified those. By and large the process was working.

MR. GROBE: The second half of my question had to do with deferrals from restart scope of work to post-restart scope of work.

MR. LOEHLEIN: Those were all captured in the same settings with the same management team members that would do those at the same deferrals, as well as if they were recategorizing them for classification or whether they were being recategorized for pre versus post restart.

MR. GROBE: What were your observations regarding Operations engaged in the question

deferrals?

MR. LOEHLEIN: I couldn't hear you.

MR. GROBE: Do you have any observations regarding Operation's engagement in the discussion of deferrals from restart scope to post-restart scope?

MR. LOEHLEIN: Sorry, Jack, I personally don't.

MR. GROBE: Okay, thank you.

MR. LOEHLEIN: I haven't documented anything like that. I would check with my assessors who regularly attend those, if you like. Get you that data on how many times Operations has been the one to seek help.

MR. GROBE: I would be interested in feedback. You can just give me a call. Thanks.

MR. POWERS: Jack, I would add to that. Operations participates on the Restart Station Review Board, typically either Mike Roder, the Operations Manager or Mike Ross, one of our Senior Consultants, Restart Director, participates on those boards. So, there is an operational input to those decisions.

MR. LOEHLEIN: I might also add,

Jack, that we early on, attending these. Of course, we wouldn't object as QA, but it was our belief that many more items were being treated as prerestart than classification criteria would have required. And there were very much erring on the side of conservatism in our view. So, we expect that there might be some time to come along where it would be necessary to take another look at those.

MS. LIPA: Just to butt in for a minute, Steve. Just for a time check. This is very important information we're discussing, but we need to kind of move forward quickly through the rest of this.

Go ahead.

MR. LOEHLEIN: As far as the readiness of plant staff, this again we've been monitoring the activities of Management/Human Performance Plan. As mentioned, we conducted our own surveys of Safety Culture. And, so many other things in the interest of time I'll try to shorten this up.

What we're trying to continue to do is assess the organization for performance as it completes its actions toward restart. I talked about some of the things we expect and observe the organization to do. Most notably what we're looking for is how does the organization deal with changing conditions.

Radiation protection for example, is going to start

getting challenged with change in plant conditions. That will affect the radiation worker and so forth.

The entire organization is likely to see new unexpected items occur. During the walkdowns, there could be things observed. We'll be looking for the organization to properly identify the issues, escalating them appropriately, get them into the right people's hands to get them resolved.

We talked some about what kind of weaknesses or what kinds of things we're looking for. We know historically one of the problems was the organization had a tendency to go right from problem identification to problem solution. In other words, we found something here and rushed to try and fix it, or maybe some way deal with it.

Whereas, part of trying to internalize the last couple of months is the need to recognize what the issue could potentially mean, get the right people involved, and make sure that safety is served. That's a little safety culture thing that we're looking for.

So, there would be lots of opportunities really for us to observe organizational response to changing conditions. That's going to look different in the different departments.

Operations is going to need to complete training for its modifications. It's going to have to complete its many

restart activities in a safe manner.

I might note another one that we're watching closely is the Maintenance area. Maintenance has a good plan, but there is very little run time on many of the changes that they've made. So, in our minds, they need to continue to work those plans through.

I think they need to continue to reinforce Safety Culture. I think convert to their regular safety process and transition to a normal preventative maintenance schedule as well. So, those are the kinds of things we're watching.

So, overall, I'd say the thing we're really watching more as an overall trending thing is Safety Culture, which we get input from, through all kinds of interfaces we have in the organization.

Next slide, please.

Now, some of what's on this slide has already been talked about by Lew, as far as QA's Readiness for Restart. This goes back some months, but QA had a Root Cause Analysis done, and also we had extensive Program Review done of our program. And I believe the results, that those results are really bearing fruit for us.

Lew talked about the organization or structural changes we made to make us structurally independent, and reacquisition of quality control, and enhanced oversight by

the Company Nuclear Review Board, so I won't go over that again.

We responded that some of the weaknesses or all of the weaknesses that were pointed out to us by our Program Review; some of the more important ones were, we were advised by the need to increase our emphasis on field observation activities; and we've done that both by process and even within a database we use, which we made some changes, so it's easy to indicate what settings you use to assess a particular area and what percentage of that represents field activities.

Also had the, in the development plans for my supervisors, the need for them to go out on a regular basis in the plant with their personnel. That's part of their own development. So, we've taken actions to improve or increase the field observation on what we do.

We've made process changes to improve the quality of our source documents, attributes that we audit; and especially the importance of operating experience that play into the root cause of the whole event. So, we recognized that and have been working on that. And we've improved the qualification process for our assessors.

Some other notable things that have occurred, is we built a strong relationship with the management at Davis-Besse. I attend a lot of Senior Leadership Meetings,

and Mark Bezilla and I now meet on a regular basis to exchange notes on what I'm seeing, what he's seeing. So, there is a lot of feedback between the two of us, I think.

We have very positive response to the quality assessments, of late. We're acting on the insights that were provided in the exits that we provide.

The organization also has been very supportive of our recognized need to remain independent. Historically, and in some stations, it's not at all rare for Quality Assessors to be loaned to the organization for production activities for the outage. All of our Quality Assessors are assigned, and are working to assess the organization. So, that need for us, importance of that activity is recognized by the station.

Next slide, please.

This is my final slide. It kind of lists some of the more interesting things we're going to be doing coming up here.

Just as a little reminder, we're always under continuous assessment process. We're always able to adjust our assessment activities based on organization activities and plant conditions.

Our staff meets at 7:15 every morning to adjust our activities for the day, get plant conditions. Seem to warrant that, something going on in the plant that looks of

particular safety or quality interest for us, we'll adjust our plans for that day.

For the Mode 4/3 Normal Operating Pressure Test, some of the things we'll be doing is observing control room activities. The field activities, maybe it's kind of a broad category. That's going to include observing some of the testing going on, equipment testing, but we'll also have assessors walk three on the walkdown teams. We'll pick which three.

And I already mentioned in response to our conditions we'll be watching for.

We'll look for adjusted time training that's done as we go out. And we will be doing a fair amount of oversight of Restart Test Plan activities. Rick talked about a lot of what they had planned, but we'll do the oversight of that as well.

Questions?

MS. LIPA: Well, I appreciate this, and I just want to point out that the last bullet you have is some of the things we're doing too, some similar things we'll be doing.

MR. LOEHLEIN: I thought about the whole time I heard Rick Dame's presentation, because I can't tell you what relief it is for QA Organization and the Line Organization is trying to put a lot of barriers in

place.

So, as we look at this, that's very positive the line organization is trying to provide the same kind of oversight as we will. It gives us really two chances to make sure safety is served.

MR. GROBE: I thought this presentation was very insightful and helpful. When the shutdown started awhile ago, there were some adjustments that were made early on based on feedback that we were providing and maybe internal feedback, and it got to the point where you got pretty good at this. And we haven't had a lot of significant findings recently.

You're now going through a transition. And, I think we all know the transition is very difficult.

I would be interested in hearing on a monthly basis feedback, Steve, from you and also, Rick, I would be interested in your observations as things move forward during each of these meetings.

MR. MYERS: In closing, today we talked about our readiness for Mode 3, our material improvements, our engineering improvements, and our Safety Culture improvements.

I really believe that if you look at everything, actions speak louder than words. So, I brought a tape with me today that I wanted to show. It's very short. So, with

that, I would like to start my closing.

MR. GROBE: Lew, I have a couple of comments. Did you want to show this first?

MR. MYERS: Yeah.

MR. GROBE: I'm sorry, go ahead.

(TAPE PLAYED AS FOLLOWS:)

My name is David Baker. I'm the Reactor Head Resolution Building Block Owner, and Project Manager for head replacement.

The head was replaced with one from the abandoned Midland Plant; one that was never used and is almost a duplicate of the original Davis-Besse head.

Transporting the new head across two states took two days due to its size and weight, but its arrival on site was a significant milestone for the unit. Almost as much as the swap of a two heads that occurred through the hole in Containment Building that we had to make.

The Containment vessel has been restored and tested as part of the Integrated Leak Rate Test. The reactor head has been placed on the vessel and has been tested as part of the 250 Pound Reactor Coolant System Test. All part of our plan to prepare the unit for restart.

Hi, My name Steve Fox. I was the Project Manager on the Containment Emergency Sump Project. The nuclear

industry has had a longstanding concern with respect to maintaining core cooling following a Loss Of Coolant Accident.

Our Containment Emergency Sump was one of the smaller in the industry at only 50 square feet. We've increased that strainer media square footage to over 1200 square feet or 20 times greater than what we had before. What this relates to is a greater margin of nuclear safety following a Loss Of Coolant Accident and ensuring that our safety systems operate as they're designed.

Hello. My name is Les Bowyer. I was the Project Manager for the decon and cleaning of the Containment Building at the beginning of this outage. The building presently is in the best condition that it's ever been in since it was first built.

The floors, walls, everything you can touch is clean. It's, you no longer need protective clothing or will not need protective clothing at the end of this outage as you tour that entire Containment Building.

The means that we used to clean this included pressure washing, stream cleaning, hydrolasing and a strippable coating product that we incorporated for the some of the walls and beams and structures that we had to clean.

All of the major components that had not been

replaced was in fact cleaned and in good housekeeping condition.

Hi. My name is Brian Drouillard. I'm one of the Containment Managers here at Davis-Besse, along with Merrill Smith, Rex Rutledge and Jim Kalmbach. We're responsible for correlating all the projects within the Containment Building.

We've had a lot of successes during this outage. One of major projects was to work on over 700 valves as part of the corrective action process to ensure safe and reliable operations during this restart process.

Hi. My name is Merrill Smith and I'm a Containment Manager. One of the main projects we had during this outage was painting of the Containment dome. That entailed removing all of the paint over a 40,000 square foot area and painting of over 200 gallons of paint.

One of the things that challenged us was use of the polar crane while we were getting the painters up and down from the dome, and coordination with other work activities, such as replacing the reactor coolant pump motors which required polar crane.

Hi. I'm Brad DeMaison. I'm the Containment Air Cooler Project Manager, also representing Steve Roberts, Project Manager. Our project entailed the replacement of three Containment Air Cooler fan motors; two are brand new,

one was refurbished and replaced; the dropdown registers and plenum and turning veins were also replaced under this project.

We also redesigned and reinstalled the service water trees, and this included all testing associated with the motors and service water trees and duct work.

Another project that I worked on during this outage was the fabrication of the decay heat valve tank. The valve tank protects two essential valves in the Containment Building, and ensures that in the event of a Loss Of Coolant Accident these valves are protected.

In the process of fabrication, we welded more than a quarter of a mile of stainless steel welds in order to fabricate the tank. This ensures we have the greatest margin of nuclear safety as Davis-Besse restarts.

Hello. My name is Mark Wymer. I am Project Manager for the replacement of Reactor Coolant Pumps 1/1 and 1/2. My project consisted of replacing both motors; one was a new motor, one was a newly refurbished motor; also consisted of replacing both rotating assemblies. We did this project to ensure the quality and safety of the plant.

Hi. I'm Dave Imlay, the Electrical Distribution System Project Manager. The status of the project is as follows: The conversion of Davis-Besse's Electrical Distribution System into the Electrical Transient Analysis

Program, known as ETAP software model, has been completed. The change that's necessary to the Electrical Distribution System to support Davis-Besse's Plant Restart have been identified. Work on the design packages is continuing with issuance of the design packages to the field expected within the next two weeks.

(Dave Baker) Another project that I'm responsible for is the Emergency Diesel Generator Air Start Project. Emergency Diesel Generators provide electrical power for the unit in the event that an emergency or an unusual event, much like tornado that we had here several years ago.

Periodic testing of the diesel generators had indicated that their reliability was diminishing due to particulate matter accumulating in the airstart system. The replacement of the carbon steel piping for the compressors with nonrustable stainless steel, the installation of air dryers, and replacing the carbon steel pipers from the receivers down to the airstart motors will increase our margin of safety for those safety components and prepare our unit for restart.

(END OF TAPE)

MR. MYERS: That's all I have. Thank you.

MR. GROBE: Okay, thanks.

One of the things that is challenging to me is challenging to the panel, and we've had many discussions about it, is what gives us confidence that what happened over the 90's and has happened previously at Davis-Besse does not recur.

And I've seen the graphic of multiple brick walls before, and that's really good graphic. And I think over the period in the 90's, the mortar started cracking and wasn't tuck pointed. It got to the point where it was four walls of Swiss cheese, and as soon as those holes line up you have a problem.

There is a couple issues that we have yet to talk about. One is the Long Term Safety Culture Improvements Initiatives Monitoring Plan we're meeting on in mid September, I think. Another one that we're still wrestling with is the Collective Significance Process and Corrective Action Trending Process; how that contributes to assuring long term health and not cyclic performance.

I think we haven't been able to answer that question among ourselves yet. And what I think I would like to do is have an agenda item next month and have you answer that question, and kind of build that wall for us, and see if we can develop some common understanding.

MR. MYERS: Okay.

MR. GROBE: I had no other

comments.

Does anybody have any questions or comments?

Okay. Thank you.

MS. LIPA: Okay. What we're going to do now is take a five minute break and then we'll resume for questions and comments from members of the public. So, let's be back in five minutes. Thank you.

(Off the record.)

MS. LIPA: Okay, great.

What we would like to do is open up the microphone for anybody who has a comment or question or the NRC folks here, and then we'll be available after too, if you want to come up to us personally.

What we would like to do is start with local member of the public first. We have a signup sheet on the podium. You can put your name and then state your name clearly for the transcriber. And, we would like to limit each person to five minutes and we would like to start with local members of the public or public officials first and then open it up to anybody. So, let's go ahead.

MR. ARNDT: My name is Steve Arndt, Ottawa County Commissioner. Many, many months ago, I addressed the NRC and indicated that as an elected official my first and primary responsibility is the health, safety, and welfare of the general public. And a part of this 0350

Process, while tiring, has been very rewarding.

The 0350 process, I totally believe that the NRC has maintained the integrity in that system and in that process. And I want to commend Jack Grobe and his staff, Christine, and the group that you've assembled, you've done and outstanding job of maintaining the integrity of that 0350 Process.

As far as the utility goes, I certainly have to say there has been many changes and many policy consistent with changes there as well. I wish I could call for restart today, but I think that would be premature, but we have made great progress; both the utility from the condition side of the plant, as well as the safety culture change, but I do believe we're getting close to the point where we're able to see the light at the end of the tunnel.

As I mentioned, this has been a very long and tiring process, but it's been a very rewarding process and very fulfilling. That's from a local elected official standpoint, making sure that health, safety and welfare is permanent for the NRC and the Utility as well. I think you've all proven that over the many months that that is your focus, and I commend both the Utility as well as the NRC for maintaining that focus.

I certainly know that through the length of this time there has been a lot of distraction and comments and

you've maintained the focus, which is where it needs to be, and I commend both the Utility as well as the NRC for that.

In short, I hope that the systems that we've put in place for the continuing oversight with both the Utility and Corporate oversight structures serve as well. I believe it will. I can certainly tell you as a County Commissioner, one of our strong measure processes is make sure those systems and policies are in place and to make sure and ensure that those are carried out, and I believe we're doing that here today through the O350 Process as well.

And so, I just wanted to come up. And I know you don't always hear positive comments, but as a local elected official, I can tell you the community has recognized the integrity of the NRC and their focus as well as the Utility. We appreciate that. Thank you.

MS. LIPA: Thank you for comments, Steve.

MR. GROBE: Steve, I really appreciate your comments. Integrity is something that is very important to us, and objectivity is maybe even a better word.

And the Resident Inspectors are here every day. They need to maintain their objectivity, make sure they're

providing effective independent oversight. I have confidence they are. We also have become very closely involved in, I would have to say, day-to-day assessments.

We have a team of about ten Resident Inspectors up here. And it's very important to ensure that we maintain and fulfill our responsibilities of objective and independent oversight. So, I appreciate your observations. Thank you very much.

MS. LIPA: Does somebody else have a comment or question for us?

Okay, we'll expand it to not just local, but anybody.

Okay, our next public meeting is September 10th. I want to make sure I have the right date here. That's right.

We'll be back again at 7 tonight.

Our next business meeting next month will be Wednesday, September 10th, at 2 p.m. and 7 p.m. Going to Wednesday that time for schedule reasons. And we also talked about a couple of other special public meetings that we'll be working on setting up in the meantime and those will be published on our website.

Is there anybody else who has any comments or questions for us?

Okay, we'll be back again at 7 tonight. If anyone

wants to return.

Thank you for coming. Good night.

(Off the record.)

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CERTIFICATE

I, Marie B. Fresch, Registered Merit Reporter and Notary Public in and for the State of Ohio, duly commissioned and qualified therein, do hereby certify that the foregoing is a true and correct transcript of the proceedings as taken by me and that I was present during all of said proceedings.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal of office at Norwalk, Ohio, on this 22nd day of August, 2003.

Marie B. Fresch, RMR

NOTARY PUBLIC, STATE OF OHIO
My Commission Expires 10-9-03.